SCHOOL CLIMATE AND FAITH ENGAGEMENT

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Executive Summary

This project examined the relationship between school climate and the faith engagement of students within one faith-based school in New South Wales, Australia. The aim of the project was to firstly discover if a significant relationship existed between school climate and that of faith engagement, as self-reported by students. The key question underlying the research was, "does an increase in the faith engagement of students positively impact school climate?" (and vice versa).

A previously validated climate instrument was adopted, known as the School Climate Measure (SCM), a tool used in numerous projects in a number of countries. The *faith engagement of students* survey however, was developed by the project, drawing on relevant literature. This instrument was tested and refined through two pilot trials at similar sized faith-based schools in New South Wales.

Data were collected from students near the start of the project, followed by a range of initiatives designed to positively impact both school climate and the faith engagement of students. A follow-up survey was then conducted 14 months after the initial data collection.

Results from both data collections showed strong relationships between school climate and faith engagement scales. While however the second data collection demonstrated a positive increase in regards to *satisfaction with school*, other measures were either non-significant or were a little more negative (small effect size). It was concluded that a number of the initiatives implemented would take longer to embed and that further longitudinal study would be needed in order to explore their impact. There was also a recognition that a number of the initiatives were at an 'organisational' level and perhaps not sufficiently targeted at the student level.

Structural equation modelling (SEM) was used to construct three models, illustrating the relationships between key project variables. Results indicated that school climate has a significant impact on all faith engagement variables. The faith background of students also exerted a significant influence, particularly on student *attitudes towards Christian practice*. Likewise, the SEM models illustrated the impact that student faith engagement has on key school climate variables and in particular on *opportunities for engagement*, with indirect effects on student perceptions of *order, safety & discipline and student-teacher relationships.*

The results confirm the hypothesis that a strong relationship exists between school climate and the faith engagement of students, within a faith-based school. The use of SEM indicate that these effects are reciprocal and likely to be cyclical in nature. The study suggests that schools' efforts to positively increase the faith engagement of students will have a positive impact on school climate (and vice versa), though further longitudinal study will be needed to confirm this.

The project also notes the considerably less positive attitudes towards faith engagement of students not of a faith-background. It will be important for faith-based schools to consider appropriate differentiation of faith engagement opportunities so as to meet the needs of students from a non-faith background and to provide opportunities for them to engage in positive and meaningful ways.

Prologue: Introducing the Project from a Personal Perspective

As a faith-based school, we have assumed that efforts to engage students in faith-education has a corresponding impact on other areas of school functioning, such as school climate. We noted however that there appears to be a lack of evidence regarding this assumption and were keen to further explore these two constructs. If no relationships were found to exist, it would probably be of significant concern to a faith-based school! In addition to this, results from an annually conducted Insight SRC School Climate instrument indicated measures of school climate were lower than expected. The inability however of the school to gain access to the individual case data from this commercial instrument made it difficult to explore more than surface level conclusions.

The fortuity to obtain sponsorship through an AIS research initiative provided a coveted opportunity to explore these two sets of variables, from the perception of students. While it is acknowledged that the perception of others within the school community such as staff and parents are likewise important, this project primarily placed its energy into exploring constructs from a student perspective. The literature would support the view that the student perspective should form the primary driver of initial discussions related to school climate.

Around 30% of all schools in Australia (and about 94% of independent schools) have a particular religious affiliation. Thus, the ability to examine the impact that this faith component has on other school outcomes is important to explore. The success of schools in utilising the faith-based aspect of their offerings to positively impact outcomes for all students, could be seen as a significant factor in their ongoing success, and arguably - on their rationale for existence.

This report will begin with a summary of the literature in relation to both school climate and faith development. This will lead to a brief outline of education from a Christian worldview, particularly as it relates to the development of faith in students. Chapter 2 presents the methodological approach of the project, followed by an outline of the results following the initial data collection (Chapter 3). Chapter 4 outlines the initiatives implemented by the school to increase both faith engagement and school climate, with Chapter 5 reporting on the results from the follow-up data collection, 14 months. Chapter 6 presents the results from the qualitative data, with the Chapter 7 outlining results from the structural equation modelling, with a presentation of three models developed through this process. The final Chapter (8) provides a summary of implications for schools, including suggestions for further research.

While a discussion section is included in the final Chapter, it needs to be noted that discussion sections are also included within other chapters, as the report progresses. Thus the discussion is 'ongoing', rather than contained only within the final section.

Chapter 1: Literature Review

While an acknowledgement of the importance of school climate can be traced to the early twentieth century, is was not until the 1950s that research into climate (in an organisational sense) began to gain prominence (Zullig, Patton, & Ubbes, 2010, p. 25). By the 1990's, research was focused on attempts to link school climate to a range of important student outcomes, including academic, behaviour and health correlates. While differences exist in the way school climate is defined - it is usually viewed as the combined subjective experiences as reported by students, and includes aspects such as relationships, sense of safety, connectedness to school and academic support (Zullig et al., 2015). It is also referred to as the quality and character of a school, with the recognition that each school possesses a distinct and unique 'atmosphere' (J. Cohen, Pickeral, & McCloskey, 2009). This distinctive character will exhibit itself as a set of shared values and attitudes that determine what is considered acceptable in a particular context (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013).

While a variety of school climate categories or domains have been suggested, they generally include areas such as: the quality of relationships with staff and with other students, the learning and teaching environment, the sense of order, safety and discipline experienced, and the impact of the various structures of the institution on the students (J. Cohen et al., 2009; Thapa et al., 2013). Some researchers such as Zullig et al. (2015) divide these school climate domains into further categories that include aspects such as parental involvement and opportunities for engagement, in addition to considering physical aspects of the environment.

Efforts by researchers have established links between school climate and a wide range of significant outcomes for students including: academic achievement (for example: Berkowitz, Moore, Astor, & Benbenishty, 2016; Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Daily, Mann, Kristjansson, Smith, & Zullig, 2019; Sakız, 2017) learning motivation (Marsh, Martin, & Cheng, 2008) school attendance, and school avoidance (Brand et al., 2003; Sakız, 2017). A significant connection has also been found with self-esteem and depressive symptoms (Way, Reddy, & Rhodes, 2007), school satisfaction (Zullig, Huebner, & Patton, 2011; Zullig, Ward, Huebner, & Daily, 2018), self-rated health (Zullig et al., 2018) and teacher retention (Thapa et al., 2013). Behavioural problems with links to school climate include aggression, school delinquency, alcohol abuse, risk taking behaviour and bullying perpetration (Bandyopadhyay, Cornell, & Konold, 2009; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Petrie, 2014a; Tomczyk, Isensee, & Hanewinkel, 2015; Wilson, 2004). A study by Daily et al. (2019) for example, investigated the relationship between school climate and academic achievement in 2,410 middle and high-school students. Results indicated that positive school climate was associated with increased academic achievement, with the climate variable of academic support displaying the strongest relationship. This accords with a major study by Konold and associates (2018) who collected data from 60,441 students in 298 high schools in the United States. Positive school climate was found to be associated with higher student engagement and with better academic achievement.

Links between school climate and student behaviour are also well established. A study by Petrie (2014a) for example, collected data from 20 primary schools in Melbourne, Australia. When examining data aggregated at the classroom level, it was found that up to 41% of the variation in bullying experienced between classrooms could be explained by school climate factors. A cross-sectional study by Jain et al. (2018) likewise concluded that building a positive school climate may be beneficial for preventing adolescent relationship abuse (and vice versa).

It is argued by some that the causal relationship between school climate and student aggression is bi-directional or cyclical in nature (Klein, Cornell, & Konold, 2012). It is possible for example, that students who are involved in risky, aggressive behavior might be more inclined to perceive their school climate in negative terms (Klein et al., 2012). Likewise, it is likely that the behaviour of individuals influence the peer group, the actions and attitudes of peer groups influence climate, and the school climate (shaped by a wide range of influences) in turn affects the attitudes and behaviour of students. Individuals are thus seen to be affected in the way they develop by the way they act upon their environment - and the way in which their environments acts upon them (DeSantis King, Huebner, Suldo, & Valois, 2006).

There is a strong body of evidence to support the impact on school climate of areas such as student-teacher relationships (Ahnert, Harwardt-Heinecke, Kappler, Eckstein-Madry, & Milatz, 2012; Barile et al., 2012; Zullig, Huebner, & Patton, 2011), belonging and connectedness (Bond et al., 2007; Osterman, 2000), supportive and fair discipline structures (Cooney, 2008; Gottfredson et al., 2005; Lewis, Romi, Katz, & Qui, 2008) and student-leader characteristics (Bukowski, 2011; Cillessen & Marks, 2011; Lansu & Cillessen, 2012; Litwack, Aikins, & Cillessen, 2012). There is however a paucity of research exploring the links between school climate and the engagement of students in the faith development activities typically found within faith-based schools.

Spirituality, Religiosity & Faith

In defining spirituality, some authors describe it simply as a representation of the meaning and purpose we see in life, the values we cherish, and our connectedness to the world around us (for example: Astin, Astin, & Lindholm, 2010). Others however view spirituality as something transcending the natural experience and define it as a connection between the human and the sacred (Brownrigg, 2018). The literature in this area tends to distinguish between spirituality and religion by viewing religion as involvement in activities that are affiliated with particular religious groups, while spirituality is seen as a "connection between a person and a higher power and how that transcends into their daily walk and behaviour" (Brownrigg, 2018, p. 57). It could be argued that within this paradigm, someone could be religious without necessarily being spiritual and likewise, a person's spiritual development could arguably occur outside the bounds of organised religion (Moore-Thomas & Day-Vines, 2008).

Many believe that all humans share a certain spiritual essence, "a craving deep within for transcendence and meaning" (Ratcliff & May, 2004, p. 7). This may include a sense of wonder and of emotional resonance as they encounter beauty in nature, in relationships or through particular events (May, 2019). It is argued that this human search for meaning appears to be deeply embedded in the psyche of those who are searching for a spiritual experience and in their desire for something that transcends the 'normal' (Skinner, 2018). It is claimed by some that children have an innate spiritual awareness, independent of the intervention or assistance of adults (Fowler & Dell, 2006; Scott & Magnuson, 2006). It is argued however that while children have a natural spiritual bent, the adult world "is more often than not destructive to their spirituality" (Hay & Nye, 2006, p. 33). Despite this, it is posited that today's generation of youth are wanting 'meaning tools' in order to "answer life's big question and successfully navigate the turbulent waters of shifting values in the cultural context in which they live" (Nagy, Ostrander, Kijai, & Matthews, 2017, p. 10).

Defining Faith

For some authors, the term 'faith' is defined similar to that of spirituality, as a quest for meaning and transcendence that leads a person to finding purpose in life (Newberg & Newberg, 2006). It is seen as continuing to develop during the lifespan, having a "mutual interaction with the person's sense of spirituality and religion" (Newberg & Newberg, 2006, p. 184). Others however view faith as something that may develop as a result of "spiritual propensities and reflections" (Borgman, 2006, p. 439). Within this context, faith is viewed as "a body of truths combined with an integration of implied values lived out in a way consistent with those beliefs and values" (Borgman, 2006, p. 439). Faith would thus be viewed as more than a belief, but having to do with "involvement and response" and with "living a particular way" (Scarlett, 2006, p. 25).

Faith development (within a religious and/or spiritual context) is perceived by some authors as being a series of stages that people pass through on their way to developing a mature and secure faith (for example: Fowler & Dell, 2006; Stephens, 1996; Westerhoff, 1980). Many view this as a process that bridges all religions (Fowler & Dell, 2006) and that is separate from any particular faith tradition (Anthony, 2006). In considering the development of a child, Nye (2004) goes so far as to argue that our understanding of developmental psychology is incomplete without an understanding of spirituality as an integral part of a child's development.

The Christian Worldview

Within a Christian worldview, spirituality is seen as an awakening of a person's 'personal centre' by God's grace (Anthony, 2006). It is evidenced by a growth in faith characterised by a "Godward reorientation of life", and demonstrated by the desire to love and serve both God and others (Howard, 2008, p. 231). This spiritual connection is seen as being achieved by "a life of prayer" and "a life of care" (Howard, 2008, p. 338), resulting in a faith journey that follows Christ's example of giving and of service. This process of being shaped so as to conform to the image of Christ is seen as being not just for the benefit of the individual, but also for the purpose influencing those with whom they associate (Escobar Arcay, 2011). This personal transformation is seen as the key mandate of Christian Education (Horan, 2017).

Christian Education

In its broadest sense, Christian education is seen as that in which there is a Christ-centred approach to learning, teaching and scholarship (Cosgrove, 2015). It is intended to be a place where there is opportunity for the holistic development of physical, mental and spiritual powers, in preparation not only for this life, but for the life to come (White, 1952). Not only should students be able to see a connection between Christ and their school-work, but also a practical and tangible connection between Christ and their daily life (Roso, 2018).

In this context, every student is viewed as being distinctive and called to have a personal association with Christ that is unique. "The Bible makes it clear that every time there is a story of faith, it is completely original. God's creative genius is endless. He never, fatigued and unable to maintain the rigors of creativity, resorts to mass-producing copies" (Eugene Peterson, cited in: Mancini, 2008, p. 5).

Yet even as each individual is seen as making a unique contribution within the world, they are seen as doing so within a company of believers where the gifts God gives are balanced by those he also gives to others (Hoekstra, 2012). Thus, the work of Christian Education includes the ability to work together and to appreciate the uniqueness of others, with the recognition that "our connections are for naught, unless God establishes those efforts" (Hoekstra, 2012, p. 168).

Christian Teachers

Within a Christian worldview, Christian teachers are seen as having the task of assisting students discover Christ for themselves (Coria-Navia, Overstreet, & Thayer, 2017). It is argued that their work needs to provide an environment in which students feel supported and affirmed in their individual journey and where they can express and discuss both their successes and failures. "Unlike indoctrination, teachers do not dismiss conflict and doubt; unlike critical inquiry, teachers do not celebrate conflict and doubt" (Reichard, 2013, p. 292). It is a collaborative journey that teachers and students must embark on and travel together (Reichard, 2013).

Christian teachers are seen as having the responsibility to genuinely model a living connection between faith and life (Prior, 2018), finding the means to make the concepts and the application of these, of personal relevance (Coria-Navia et al., 2017). Students are in search of authentic experiences and as such are particularly impacted by the journey of teachers for whom they view the faith journey

to be real (Hoekstra, 2012). Christopher Prior (2018, p. 135) warns however that if "the words and actions of teachers are not coupled with policies, practices, curriculum and pedagogy that reflect the gospel, then students will be presented with a truncated gospel within a dualistic approach to schooling".

The Nexus between School Climate and Faith Engagement

The underpinnings of faith-based education suggest that a relationship between school climate and faith engagement might be expected. Faith-based education claims to influence students in a holistic manner (Knight, 2016), asserting the importance of factors that would also be perceived as influencing positive climate and culture. This includes a recognition of the relevance of service to others (Lewing, 2018; Mullen, 2010), compassion (Newhouse, 2019), active student voice (Reichard, 2013), the fostering of well-being in both the individual and the community (McDonough, 2011) and positive leadership that exemplifies the values espoused by the institution (Prior, 2018). It is also useful to consider the priority that faith-based education places on the search for meaning and purpose in life, including the formation of personal identity (Hoekstra, 2012; Nagy et al., 2017), the advancement of personal and ethical autonomy (B. V. Hill, 2008) and an emphasis on the development of positive relationships (Derrico, Tharp, & Schreiner, 2015; B. Hill, 2014).

The area of interpersonal relationships is particularly emphasised within faith education literature, with the suggestion that "teachers have a mandate to first ensure that their relationships with students are warm, caring and supportive, and that they build trust and love in these relationships" (B. Hill, 2014, p. 21). Indeed, a number of authors emphasise the importance of positive interpersonal relationships as a contributing factor to the development of personal faith (Christie & Christian, 2012; de Souza, 2005; Roy, 2008). There is thus an existing premise within the literature for assuming that faith engagement may share certain synergies with school climate variables.

Also of interest is the body of work examining the impact of faith-based connections within diverse contexts, being referred to by some as 'religious affect' (Village, Francis, & Brockett, 2011). This 'religious effect' has been found to be positively correlated with variables such as altruism, empathy, psychological health (Village et al., 2011) and academic achievement (Yeshanew, Schagen, & Evans, 2008). As previously mentioned however, the literature in regards to the nexus between faith development and positive school climate is lacking.

Defining Faith Engagement

It is recognised that the task of determining the development of faith can be challenging and subjective, and that some doubt remains whether the measuring of a student's spiritual growth is appropriate or even possible (Hoekstra, 2012). In general however, it is common for faith development to be assessed using social behaviour-style surveys, administered over time (for example: Hall & Edwards, 2002; Petrie et al., 2016; Styron, 2004). Increases in scores may thus be seen as indicators of individual progress within the faith journey. The current study however does not attempt to measure the development of faith over time per se. Rather, it seeks to capture the extent to which students have a positive attitude towards and engage in activities that are likely to facilitate faith development.

The term 'engagement' itself can be problematic, with a range of suggestions as to how it should be viewed, depending on the specific context (Whitton & Moseley, 2014). Within the context of student engagement, the literature suggests a number of aspects to consider including: motivation, autonomy, and the interest of the learner - in addition to cognitive, emotional and social factors (Whitton & Moseley, 2014). Indeed, learner engagement is viewed as a 'meta construct' that encompasses behavioural, emotional and cognitive dimensions (Bouvier, Lavoué, & Sehaba, 2014; Fredricks, Blumenfeld, & Paris, 2004).

In considering these dimensions, it is appropriate to note the significant impact that positive psychological state plays (Hart, Sutherland, Tan, & Fisher, 2013; Rich, Lepine, & Crawford, 2010). In short, those with a positive state of mind are more likely to evidence behaviour characterised by "vigour, dedication and absorption" (Schaufeli, Salanova, González-romá, & Bakker, 2002, p. 71). Positive attitudes are thus viewed as an important factor in determining positive behaviour (Fredricks et al., 2004).

Within the current study the term engagement (and in particular faith engagement) is defined as a positive and dedicated commitment to faith development practices at both a personal and a school level. It is theorised that the positive attitudes of students in relation to faith-engagement activities will in-turn impact their choices in relation to faith engagement, both at a personal and school level.

Aims and Research Questions

This study hypothesised that more positive measures of school climate are related to more positive attitudes towards, and a greater engagement in faith development activities, both at a personal and school level. It also theorised that those from a faith background are more likely to view faith activities in a positive light, compared with students who did not have a faith background. The study thus centred around the following three questions:
1. Is there a significant relationship between school climate variables and faith engagement scales, as self-reported by students?
2. Will an increase in school climate demonstrate a corresponding increase in faith engagement in students (and vice-versa)?
3. What do students suggest are the most effective ways to better engage them in faith activities at school?

Chapter 2: Methodology & Data Collection

The current study seeks to determine if a significant relationship exists between school climate and faith engagement variables. This required data to be collected from a substantial sample of students and to be uniformly recorded and coded so as to provide a data set suitable for quantitative analysis (Check & Schutt, 2012; Lavrakas, 2008). Survey methodology enables a greater number of classrooms to be covered within the given time, and thus a larger data set to be collected and analysed. Sample size is considered an important factor when attempting to generalise results to the wider population (L. Cohen, Manion, & Morrison, 2017).

Along with the quantitative approach however, students were also provided the opportunity to comment on various aspects of faith engagement within their school. It is acknowledged that mixed methodology allows for a greater understanding and broader perspective of the issues involved (Creswell & Creswell, 2018), providing a depth of understanding not possible through a single approach (Tashakkori & Teddlie, 2010). These qualitative comments from students assist in interpreting and understanding the data and are unpacked in Chapter 6.

The Instruments

While a number of instruments exist with which to measure school climate, the most comprehensive validated survey is the School Climate Measure (SCM) (Daily et al., 2018; Zullig et al., 2015; Zullig et al., 2014; Zullig et al., 2010). The SCM measures 10 distinct domains of school climate: student-teacher relationships; connection to school; academic support; order, safety & discipline; school appearance; social atmosphere; perceived exclusion; opportunities for engagement; parental involvement; and academic satisfaction. Response options for each SCM item are (Strongly Disagree = 1); (Disagree = 2); (Neither = 3); (Agree = 4); and (Strongly Agree = 5) with higher scores indicating improved perceptions of school climate.

In addition to SCM, the School Satisfaction sub-scale from the Multidimensional Students' Life Satisfaction Scale (Huebner, 1994) was also included. Significant correlates have been found between school climate variables, life satisfaction, and satisfaction with school (Zullig et al., 2011; Zullig et al., 2018).

Faith Engagement Survey

A number of faith development instruments were considered for use within this study. The decision to develop a tool specific to the current project however was made in light of the following considerations:
a) Many instruments were more suitable for an adult audience, rather than for children or youth (for example: Petrie et al., 2016);
b) Some surveys [for example, Insight School Improvement Survey: (Hart & Scollay, 2018)], are part of a larger commercial package, and are unavailable for generic use within independent research projects;
c) A number of instruments for children and youth measure a 'generic spirituality', rather than one specific to the Christian context (for example: Moore, Gomez-Garibello, Bosacki, & Talwar, 2016);
d) No instrument was found that sought to measure all three aspects considered important to this project: *personal attitudes towards Christian practice, personal faith engagement* and *school influences on student faith*.

As part of the process in developing an instrument, a range of literature was examined that investigated;
a) the development of existing tools that measure faith development;
b) faith integration in the school curriculum;
c) factors identified as impacting the faith development of children and adolescents;
d) factors perceived to be associated with the effective operationalisation of Christian Education;
e) modes of engagement viewed as important to faith development.

A set of 19 forced-response (Likert type) and three open-ended questions were subsequently constructed to represent the key concepts distilled from the literature. Two focus groups comprising year 9-10 students and year 5-7 students were engaged to discuss the students' understanding of the questions and to examine the overall format and approach. This resulted in alterations to the wording of several questions, revisions to the overall format and style of the survey, and the insertion of an additional forced-response and one further open-ended question.

The focus groups were followed by a pilot trial in a faith-based school with similar demographic characteristics and a comparable academic and pastoral program to the one in which the study was to take place (N=222). The data collected from this pilot trial were subjected to principal components analysis and subsequent internal reliability analyses, with three sub-scales emerging (see Table 1). No items were signalled for removal within the reliability analyses. The final faith engagement instrument (See Appendix A) contained 20 forced response questions (answered via a five-point Likert scale) and 4 open-ended questions, designed to capture qualitative feedback from students in regards to the school's attempts to facilitate their faith journey. Response options for the faith engagement scales are (Disagree =1); (Slightly Disagree = 2); (Neither=3); (Slightly Agree = 4); and (Agree = 5) with higher scores indicating improved perceptions of faith engagement.

Table 1
Reliability Analysis: Faith Engagement Scales

Scale Name	Number of Items	Cronbach's Alpha
Attitudes to Christian Practice	5	.948
Personal Faith Engagement	4	.860
School Influences on my Faith	11	.895

Sample Selection and Data Collection

The school that was selected for the study had received a grant from the Association of Independent Schools (NSW) to investigate if a relationship exists between school climate and faith engagement variables. Situated in a rural area of New South Wales Australia, this independent faith-based school provides a K-12 education for around 900 students, with about 570 of these within the targeted Year 5-12 cohort.

The selected approach for the current research was to obtain data from students on two occasions, the first being near the beginning of the project - in March, 2018, followed by interventions intended to increase positive measures of both school climate and faith engagement. This was followed in May, 2019 with a further data collection from Year 5-12 students, again measuring both school climate and faith engagement.

Consent was sought from students and parents with 385 (68%) of student involved in the initial 2018 data collection and 417 (73%) of the possible cohort completing the survey in 2019. On both occasions the survey administered online via Survey Monkey, with a written script provided to school staff in relation to the introduction and administration of the survey, to assist with consistency. The students completed the survey during a regular class period, with the average completion time being 14 minutes.

For the first data collection (2018), following a screening of the data and the deletion of cases that contained significant missing information [N=11] or that failed the 'validity screening item' (Cornell, Klein, Konold, & Huang, 2012) [N=29], the sample size was 345. In the follow-up data collection (2019), there were six cases deleted due to missing information and 43 that failed the 'validity screening item' with the final sample being 368.

Chapter 3: Initial Analysis

As previously reported, the key scales used within the data collection were: School Satisfaction (one scale), School Climate (ten scales) and Faith Engagement (three scales). (While 'school satisfaction' is not an official part of the School Climate Measure (SCM), it was often treated synonymously within the context of the current study.)

A reliability analysis was conducted within the initial school climate data collection to check the internal consistency of the school satisfaction and SCM scales (see Table 2) using SPSS (26). This was performed to ensure its reliability within the context for which it was being used – an Australian faith-based school. Results confirmed that the satisfaction with school and school climate scales exhibited very good internal consistency and reliability.

Table 2
Reliability Analysis: School Satisfaction and School Climate Scales

Scale Name	Number of Items	Cronbach's Alpha
Satisfaction with School	8	.813
Student-Teacher Relationships	8	.916
Connection to School	4	.857
Academic Support	4	.813
School Rules, Safety and Discipline	6	.881
Physical Appearance of School	4	.890
Perceived Exclusion	3	.866
Social Atmosphere of School	2	.912
Opportunities for Engagement	5	.850
Academic Satisfaction	2	.829
Parental Involvement	3	.758

Summary of Respondents

As expected, the profile of respondents was very similar at both data collections points. A brief background of the respondents is presented in Table 3, including year level, ethnicity and faith background. Just over 75% of respondents reported being of some faith background in 2018 (70% in 2019), with close to 50% reporting being from a Seventh-day Adventist background each year. About 23% reported being of no faith-background in 2018 compared with 30% in 2019.

Table 3
Summary of Respondents by Year Level

Year Level	2018			2019		
	Male	Female	Total	Male	Female	Total
Year 5-6	50	46	96	51	48	99
Year 7-8	40	51	91	48	63	111
Year 9-10	37	39	76	36	46	82
Year 11-12	39	43	82	37	39	76
Total	166	179	345	172	196	368
Ethnicity						
European	121	139	260	126	150	276
Pacific Islander	10	10	20	8	13	21
Asian	7	5	11	8	4	12
Aboriginal/Torres Strait Islander	3	5	8	6	4	10
African	6	5	11	5	4	9
South American	4	1	6	5	2	7
Indian	4	2	6	3	3	8
Other	9	14	7	10	15	25
Total	164	180	345	171	195	366
Faith Background						
Seventh-day Adventist	93	86	179	90	87	177
Catholic	12	16	28	10	18	28
Church of England/Anglican	4	11	15	5	11	16
Hindu	0	2	2	5	3	8
Evangelical	1	4	5	3	4	7
Christadelphian	0	3	3	1	3	4
Mormon	0	1	1	2	2	4
Baptist	5	2	7	0	3	3
Other Faith	7	17	24	7	5	12
No Faith Background	41	40	81	49	60	109
Total	166	179	345	172	196	368

Faith Engagement Scales - 2018

The following paragraphs will report the mean averages of the faith engagement, school satisfaction and school climate scales for 2018. Following an outline of the interventions by the school to impact faith engagement and school climate in Chapter 4, the 2019 results will be reported and compared.

Within the three faith engagement scales (see Table 4), the lowest mean was within Personal Faith Engagement (3.11) with the highest being Attitudes to Christian Practice (3.88). Students were thus significantly more likely to report 'positive attitudes towards Christian Practice' than to actually engage in 'Christian practice' at a personal level [MD = .77, p = .000, eta squared = .10].

Table 4
Overall Mean of Faith Engagement Scales

Scale	N	Mean	Std. Deviation
Personal Faith Engagement	346	3.1091	1.10164
Attitudes to Christian Practice	346	3.8775	1.22874
School Influences on my Faith	347	3.4967	.84992

School Satisfaction & School Climate Scales - 2018

Within the School Satisfaction and School Climate Scales (see Table 5), the lowest means were within Parental Involvement (2.84), Academic Satisfaction (2.97) and Connection to School (3.15). The highest means were School Appearance (4.0), Social Atmosphere (3.81) and School Satisfaction (3.66).

Table 5
School Satisfaction and School Climate Scales - 2018

Scale	N	Mean	Std. Deviation
School Satisfaction	344	3.6563	.85880
Student-Teacher Relationships	344	3.6493	.80829
Connection to School	344	3.1541	.94562
Academic Support	344	3.9993	.74439
Order, Safety & Discipline	345	3.5899	.86517
School Appearance	345	3.9761	.71399
Social Atmosphere	345	3.8174	.90781
Perceived Exclusion	346	2.9538	.98120
Opportunities for Engagement	346	3.6002	.84007
Parental Involvement	347	2.8405	.98358
Academic Satisfaction	347	2.9654	1.19256

The Impact of Gender, Faith Background and Year Level

Following the initial data collection, a number of analysis of variance calculations (ANOVAs) were carried out to determine if significant differences existed in the way that students responded to the survey, according gender, faith background and year level. These analyses were designed to highlight any significant differences in means between these particular groups and to thus provide a better understanding of 'internal group factors' that may be impacting the data.

Gender

Results indicated that gender was not a significant factor in the way students responded, with the possible exception of:
- School Physical Appearance (where females had a slightly higher mean)
- School's Social Atmosphere (where males had a slightly higher mean)

The effect size (partial eta squared) however was small (0.014 and 0.011 respectively), thus being unlikely to result in a discernible difference in 'real world' terms.

Faith Tradition

As part of the analysis performed, the various faith tradition categories were collapsed from the original 15, to 3: Seventh-day Adventist (N=179), Other-Christian (N=82), Non-Religious N=82. Results indicated that faith tradition is a significant indicator of faith engagement, though not of school climate.

Faith tradition had a large effect on all three faith engagement scales:
- Attitudes to Christian Practice (partial eta squared = .342)
- Personal Faith Engagement (partial eta squared = .292)
- School Influences on my Faith (partial eta squared = .164)

These results are perhaps unsurprising, as it would be expected that those not affiliated with a particular religion or faith group would score lower on the faith engagement scales. The unexpected however was in the difference in means between those affiliated with the Seventh-day Adventist Church (SDA) and those within the 'Other-Christian' category. The means of students in the 'Other-Christian' category were significantly lower than for students who report an affiliation with the SDA Church.
In regards to school climate, it is interesting that no significant difference existed between faith tradition and school climate scales. Thus, faith tradition was not a predictor in how students perceived the various dimensions of school climate.

Year Level

In the next analysis, the various year level categories were collapsed from eight to four: Year 5-6, Year 7-8, Year 9-10 and Year 11-12. Results indicated that year level is a significant indicator of student perceptions towards faith engagement and of school climate. As is consistent with many other studies, positive student perception of school climate decreased in middle high school. The current study built on this finding by reporting that student self-reports of faith engagement likewise decreases at a similar rate.

Year level was also a significant indicator of student responses to all faith engagement and school climate scales, with the exception of school's physical appearance, where no significant difference in the mean was found.

> The analyses outlined above, involving gender, faith background and year level were performed again following the second data collection, with more specific detail included in Chapter 4, along with a descriptive summary of the statistical results in Appendix B.

Correlations: School Climate and Faith Engagement (2018)

As previously outlined, one of the key purposes of the current project was to undertake an initial investigation into the relationship between school climate and faith engagement. As part of the quantitative approach, correlational analysis (Pearson) was performed to examine the relationship between these two sets of scales.

Results from the correlational analysis indicated a number of significant relationships between these two sets of scales, with Table 6 summarising the most significant of these. Effect sizes were calculated based on the standard interpretation of: small ($r = .10$ to $.29$), medium ($r = .30$ to $.49$) and large ($r = .5$ to 1.0) (J. W. Cohen, 1988). While a number of significant correlations were evident from the analysis, only those with at least a moderate effect size of $.3$ or larger have been reported. In addition, to decrease the likelihood of Type I errors occurring, the alpha threshold was raised to 0.01 (L. Cohen et al., 2017).

Table 6
Examples of Results from Correlational Analysis

School Climate Scales	Faith Engagement Scales	Correlation
School Satisfaction	School influences on my Faith	$r = .548$, n = 344, p < 0.0001
School Satisfaction	Attitudes Towards Christian Practice	$r = .360$, n = 343, p < 0.0001
School Satisfaction	Personal Faith Engagement	$r = .337$, n = 343, p < 0.0001
Student-Teacher Relationships	School Influences on my Faith	$r = .565$, n = 344, p < 0.0001
Student-Teacher Relationships	Personal Faith Engagement	$r = .303$, n = 343, p < 0.0001
Connectedness to School	School Influences on my Faith	$r = .619$, n = 344, p < 0.0001
Connectedness to School	Attitudes Towards Christian Practice	$r = .305$, n = 343, p < 0.0001
Connectedness to School	Personal Faith Engagement	$r = .350$, n = 343, p < 0.0001
Academic Support	School Influences on my Faith	$r = .515$, n = 344, p < 0.0001
Academic Satisfaction	School Influences on my Faith	$r = .418$, n = 347, p < 0.0001
Order, safety & Discipline	Personal Faith Engagement	$r = .300$, n = 344, p < 0.0001
Order, safety & Discipline	School Influences on my Faith	$r = .578$, n = 344, p < 0.0001
Opportunities for Engagement	Personal Faith Engagement	$r = .342$, n = 344, p < 0.0001
Opportunities for Engagement	School Influences on my Faith	$r = .613$, n = 345, p < 0.0001
Social Atmosphere	School Influences on my Faith	$r = .458$, n = 344, p < 0.0001
Parental Involvement	School Influences on my Faith	$r = .378$, n = 347, p < 0.0001
School's Physical Appearance	School Influences on my Faith	$r = .362$, n = 345, p < 0.0001
School Influences on my Faith	School Influences on my Faith	$r = .306$, n = 346, p < 0.0001

While these correlations do not establish causality, they do highlight the significant relationships that exist between these sets of variables. They also provide evidence that these relationships are not only statistically significant but possess sufficiently strong effect sizes to make a practical difference within the school setting.

Chapter 4: Intervention Initiatives

School Intervention Initiatives

It is expected that Christian education will access various interventions and programs that aim to engage students in understanding the Christian worldview. It is generally accepted that schools undertake critical reflection to ascertain they are making real impact on the students' thinking and decision-making. Following the first sample and data analysis, the leadership team of Avondale School undertook a number of initiatives to change the general program of the school. The School's Administration identified these initiatives as areas of opportunities where measures in the faith engagement of both students and staff could be supported or grown. It was believed that these changes may result in improvement in the climate measures projected in the second sample.

Chapel Programming

A number of students in the initial data collection commented on the perceived value of chapel periods and the general engagement of students in this space. For some years, chapels have been a mixture of both civics and spiritual activities. The civics section began the chapel time each week. Announcements and information were given on special events and awards for things such as sporting and academic contests were disseminated. This took a significant portion of the Chapel period. After this, a more spiritual emphasis followed.

Administrations took the view that a more overt focus could be taken to separate the perceived spiritual program from the more civic elements of school life. It was thought that the separation would encourage further opportunities for participation in faith engagement and the faith development of both students and staff. In addition to this, the perceived engagement of students in the style of program was taken into account with an emphasis made to include activities that were more fun, inclusive, and generally engaging. Rather than merely including musical praise and worship segments with student-led bands, followed by a talk/presentation, other elements were considered such as interviews, discussion panels, video clips and icebreaker activities. The changes to the Chapel programming were made in direct response to student comments (via initial data collection). It was believed that there would be an increase in positive measures of faith engagement resulting from these changes.

Challenge Program

The school undertook a new initiative at the Year 9 level, called the "Challenge" program. This program was designed to encourage the personal growth of students in a more relaxed atmosphere than in the regular classroom. The curriculum, while flexible, addresses issues such as goal setting, organisational skills, time management, living with gratitude, dealing with forgiveness, sex education, regulation strategies for dysregulation and how a Christian worldview may be of benefit in various areas of life. In this course, the content is separated into gender specific groups, allowing for a more relaxed environment where open and honest discussion can take place within a safe environment. The curriculum also includes celebration moments that acknowledge milestones in life and in the learning experiences (challenges) within the curriculum. The students undertake various personal challenges and teamwork is encouraged.

Parents and mentors were invited along to various celebration activities such as the beach sunrise events and evening bonfires. These events provide 'validation moments' for the students, and a place where Parents and Guardians are able to attest to having witnessed the life changes. Importantly, the course provides a connection point where the Parent/ Guardian can take part in the progress with students as they responsibly move towards adulthood - informed by a Christian worldview. As a result of students accessing the faith engagement activities and faith development curriculum of the Challenge program, it was expected that the responses from students would correspond to positive self-reporting and an increase in engagement.

Year Advisor Program

For the purpose of added access and connection, the School Secondary Campus added an additional Year Advisor to each year level cohort. In the past, the school has had one advisor for each year level. Their purpose has been one of support for students who need help with personal and academic issues as they arise. In particular, Year Advisors are to engage the students by ensuring their needs were met holistically. They work to ensure the school is providing adequate support for the social-emotional needs of the student, as well as ensuring they each have access to spiritual development and mentorship. Typically, Year Advisors would be expected to support students by contacting the student and home when a loved one passes away; to arrange for academic assistance when needed; giving support when significant medical challenges are faced; and alerting staff to their needs in various areas. As a result of this change, at each level, a male and female advisor were appointed to provide a nuanced support in a more gender specific way. It was expected that this change could engender a more purposefully positioning of staff to offer a supportive environment for students.
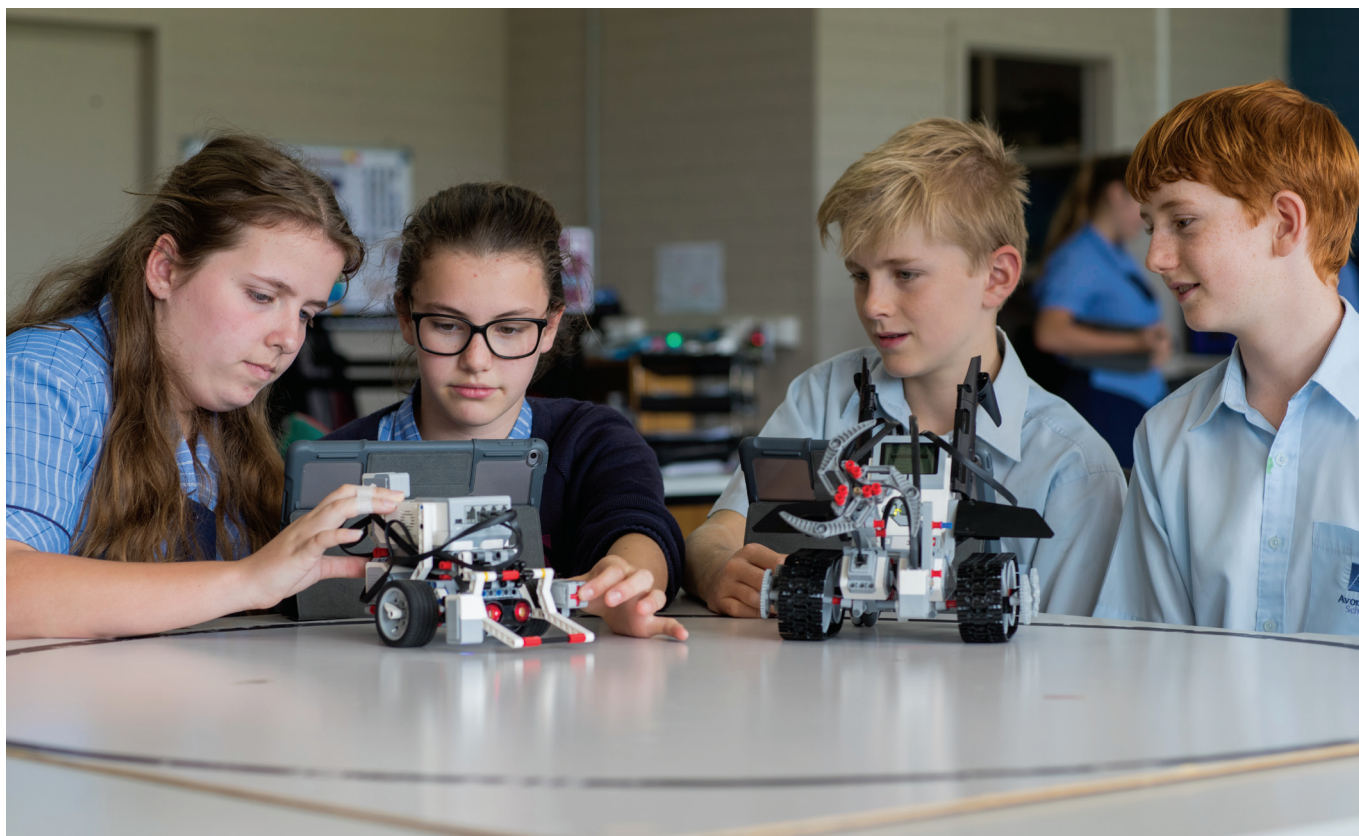
Focus on supporting the Spiritual Journey of the teachers

School Administration took an overt approach to encouraging individual teacher spirituality. Discussions were initiated with each staff member, with the Principal encouraging them on their personal spiritual walk. In a corporate sense, the administration was more intentional in upholding the importance to staff of being God-filled and student-focused.

Every morning the first professional appointment of the day is staff worship and staff members in the various primary and secondary staffrooms meet together to begin the day with a spiritual focus and prayer. In the past, all staff have combined together once a week to meet as a whole group. In an endeavour however to increase staff spiritual engagement, this was increased to twice per week with more staff involvement in sharing their personal spiritual journey. It was assumed that by having a deliberate focus on spirituality across the staff there would be an improvement in the spiritual tone across the campus, engendering not only increased faith engagement but also encouraging a more inclusive feel between the primary and secondary sections of the campus.

Leadership Restructure

While not specifically a faith engagement or development specific activity, it is of note that the school went through a restructure of the various leadership roles on campus. This was carried out with the focus of creating greater opportunity for collaboration and connectivity. In order to foster more student-focused outcomes, Key Learning areas were combined into Learning Hubs. The intention was to see the departments working collegially together around student centred outcomes.

Initiatives in the School Context

It was envisaged that with these interventions to programs, curriculum and administrative approaches, there would as a result be a greater sense of connectedness and commitment to faith engagement by students. While these changes appeared to be reflective of initiatives viewed as useful in developing positive school climate and encouraging faith engagement, the impact was yet to be measured.

Chapter 5: 2019 Data Collection

In May 2019, following the implementation of the school climate and faith engagement initiatives outlined in Chapter 4, a second data collection was conducted (N = 368). A series of T-Tests were performed to compare the difference in scores between 2018 and 2019, with the results displayed in Tables 7 and 8. Surprisingly, while school satisfaction moved upwards in the positive direction, changes within other scales were in the negative direction (albeit with small effect sizes). This will be discussed further towards the end of the current chapter.

Table 7
School Satisfaction and School Climate Scales – 2018 vs 2019

Scale	2018	2019	Difference Between 2018 & 2019 Means?
School Satisfaction	3.6563	3.9511	Yes – 2019 mean higher [p = .000] 0.036 = small effect (eta squared)
Student-Teacher Relationships	3.6493	3.5126	Yes – 2019 mean lower [p = .030] 0.014 = small effect (eta squared)
Connection to School	3.1541	2.9667	Yes – 2019 mean lower [p = .008] 0.020 = small effect (eta squared)
Academic Support	3.9993	3.8770	Yes – 2019 mean lower [p = .036] 0.020 = small effect (eta squared)
Order, Safety & Discipline	3.5899	3.4382	Yes – 2019 mean lower [p = .017] 0.016 = small effect (eta squared)
School Appearance	3.9761	3.9319	No significant difference in means
Social Atmosphere	3.8174	3.7962	No significant difference in means
Perceived Exclusion	2.9538	3.1362	Yes – 2019 mean higher [p = .008] 0.020 = small effect (eta squared)
Opportunities for Engagement	3.6002	3.5405	No significant difference in means
Parental Involvement	2.8405	2.7654	No significant difference in means
Academic Satisfaction	2.9654	2.8651	No significant difference in means

Table 8
Overall Mean of Faith Engagement Scales

Scale	2018	2019	Difference Between 2018 & 2019 Means?
Personal Faith Engagement	3.1091	2.9707	No significant difference in means
Attitudes to Christian Practice	3.8775	3.7695	No significant difference in means
School Influences on my Faith	3.4967	3.3668	Yes – 2019 mean lower [p=0.029] 0.014 = small effect (eta squared)

Differences According to Gender, Faith Background and Year Level

Similar to the first data collect, it was decided to use a series of ANOVAs to further investigate the way that students responded to the survey according gender, faith background, and year level. These analyses were designed to highlight any significant differences in means between these groups, in order to provide a better understanding of 'internal group factors' that may impact the data.

Gender

Results indicated that gender was not a significant factor in the way students responded to either the school climate or the faith engagement scales, with the exception of: school physical appearance, where females reported a slightly higher mean: [female (M = 4.07, SD = .776)]; [male (M = 3.78, SD = .847)]; t(366) = -3.44. The effect size (eta-squared) however was small (0.016, p = 0.001).

Faith Tradition

As part of the analyses, the various faith tradition categories were collapsed from the original 15, to three: Seventh-day Adventist (SDA) [N = 177], Christian – non-SDA [N = 68], and no-Faith Tradition [N = 109]. In all measures of school climate, non-SDA Christians perceived the school climate more positively, followed by SDA students, with those having no tradition perceiving the climate least positively. The only exception was in regards to parental involvement where SDA students perceived this more positively, followed by non-SDA Christian students, and lastly – students from no faith background.

Not all of the differences in means however were statistically significant. Table 9 displays those that did demonstrate a significant difference (refer to Appendix A for eta-squared effect sizes). It should be noted that;
a) while statistically significant, the actual effect size in each case is small;
b) there is not a significant difference between every variable, with the asterisks in Table 6 signifying the variables between which a significant difference exists.

[See Appendix B for a summary of the statistical results, including eta-squared effect sizes.]

Table 9
The Influence of Faith Background on School Climate Responses: Means

Scales	MEANS SDA	MEANS Non-SDA Christian	MEANAS No Faith Background	Results from ANOVA
School Satisfaction	3.98	4.20*	3.70*	The only statistically significant difference in means was between: *Non-SDA Christian and No Faith Background groups (small effect size).
Student-Teacher Relationships	3.56*	3.72 **	3.28* **	A significant difference in means was found between: *SDA vs No Faith (small effect size) **Christian Non-SDA vs No Faith (small effect size)
Order, Safety & Discipline	3.50*	3.66**	3.19* **	A significant difference in means was found between: *SDA vs No Faith (small effect size) **Christian Non-SDA vs No Faith (small effect size)
School Appearance	3.93*	4.20**	3.81* **	A significant difference in means was found between: *SDA vs No Faith (small effect size) **Non-SDA Christian vs No Faith (small effect size)
Social Atmosphere	3.82	4.04*	3.60*	The only statistically significant difference in means was between: *Non-SDA Christian and No Faith Background groups (small effect size)
Opportunities for Engagement	3.56	3.80*	3.33*	The only statistically significant difference in means was between: *Non-SDA Christian and No Faith Background groups (small effect size)
Parental Involvement	2.87*	2.82	2.56*	The only statistically significant difference in means was between: *SDA and No Faith Background groups (small effect size)

As previously noted, the only scales for which a significant difference between SDA and non-SDA Christian was found is for Student-Teacher Relationships, Order, Safety & Discipline, and School Appearance. While the effect size is small, it is nonetheless interesting to note the trend for non-SDA Christian students to regard the school climate more positively. This may suggest that they have an appreciation for what the school offers that is perhaps taken for granted by families from within the Adventist church.

Faith Tradition & Faith Engagement

Perhaps unsurprisingly, significant differences existed between the faith-background variable and the faith engagement scales (see Table 10). [Refer to Appendix A for eta-squared effect sizes.] There is a significant difference in means between every pair of factors, with the exception in means (SDA vs Non-SDA Christian) in the attitudes towards Christian practice scale.

Table 10
The Influence of Faith Background on Faith Engagement Scales

Scales	SDA	Christian Non-SDA	No Faith	Results from ANOVA
Personal Faith Engagement	3.58	3.09	1.95	A significant difference in means was found between all three groups.
Attitudes Towards Christian Practice	4.46*	4.16**	2.45* **	A significant difference in means was found between: *SDA vs No Faith **Christian Non-SDA vs No Faith
School Influences on my Faith	3.74	3.44	2.75	A significant difference in means was found between all three groups.

These effect sizes are likely to result in observable differences in attitudes and behaviour. Those (for example) from no faith background are less positive in their attitude towards school attempts to engage them in Christian faith activities, compared to those from a Christian faith background. The surprising finding however was the significant difference in means when comparing students from a SDA background with non-SDA Christian students. Adventist students were significantly more likely to report positive attitudes (and personal commitment) towards faith engagement activities than non-SDA Christians.

Year Level & School Climate

In addition to comparing the difference in means between different faith groups, it was useful to do likewise according to year levels. The eight year levels involved in the survey (year 5-12) were collapsed to four: Year 5-6, Year 7-8, Year 9-10 and Year 11-12.

A series of ANOVAs were performed to compare the mean differences of these three groups in relation to the School Climate scales, with significant differences evident across all scales (see Table 11). [Refer to Appendix B for eta-squared effect sizes.]

Table 11
The Influence of Year Level on Responses to School Climate Scales

Scales	Year 5-6	Year 7-8	Year 9-10	Year 11-12	Results from ANOVA
School Satisfaction	4.58	3.85	3.72	3.52	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Student-Teacher Relationships	3.95	3.40	3.27	3.36	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Connectedness to School	3.56	2.87	2.72	2.61	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Academic Support	4.27	3.77	3.70	3.70	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Order, Safety & Discipline	3.99	3.39	3.13	3.14	A significant difference in means was found when comparing year 5-6, with the other three age groups.
School Appearance	4.21	3.79	3.84	3.88	A significant difference in means was found when comparing year 5-6, with the other three age groups.
School Atmosphere	4.16	3.72	3.67	3.57	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Perceived Exclusion	2.88	3.14	3.38	3.20	A significant difference in means was found when comparing year 5-6 vs year 9-10.
Opportunities for Engagement	4.05	3.39	3.28	3.37	A significant difference in means was found when comparing year 5-6, with the other three age groups.
Parental Involvement	3.00	2.85	2.65	2.47	A significant difference in means was found when comparing year 5-6 vs year 11-12.
Academic Satisfaction	3.15	2.85	2.64	2.76	A significant difference in means was found when comparing year 5-6 vs year 9-10.

Year Level & Faith Engagement

A further series of ANOVAs were performed to examine the difference in means between year level and faith engagement scales. Results showed that while differences exist, they were only statistically significant for the school influences on my faith scale (see Table 12). [Refer to Appendix B for eta-squared effect sizes.]

Table 12
The Effect of Year Level on Responses to Faith Engagement

Scales	Year 5-6	Year 7-8	Year 9-10	Year 11-12	Results from ANOVA
School Influences on my Faith	3.76	3.25	3.23	3.19	A difference in means (small effect size) was found when comparing year 5-6 with the other three year groups.

Thus, similar to the school climate scales, older students are less likely than the younger ones to view school influences on their faith in a positive light.

Discussion

It was expected that the initiatives that were engaged by the school would correspond to more positive measures in school climate and faith engagement. While Table 7 shows that the overall mean within the school satisfaction scale improved, it was surprising that there were negative results across the other climate scales. In addition, Table 8 compares the overall mean of the Faith Engagement Scales, with a negative trend evident in regards to school influences on my faith.

Changes in Leadership

While the school had worked through a middle-management leadership restructure and application process in 2018, the effects of the new leadership structure and accompanying job descriptions were perceived to impact staff morale. It is important to note that issues concerning, change management, role transitions and role expectation was still being worked on, and in some cases, being renegotiated at time of the survey in May 2019.

The overall leadership of the school was further affected by the promotion of the School Principal to a System Administration position. This required senior administration to be reshaped to accommodate internal role changes. It is significant to note that there was not sufficient time between the change being made and the new structural philosophy being embedded, in order to see a positive return on the new initiatives.

Limitation with regard to the embedding of initiatives and changes

While the new initiatives such as: having a male and female Year Advisor, the introduction of two Staff Worships per week, the Year 9 Challenge Program and the new Chapel format were functioning at the point of the second sample being taken, they were in reality - newly formed. This may account for the lack of positive change in attitude, evidenced through the follow-up survey. It is possible that while students were more satisfied with the school, they were yet undecided about all the initiatives.

Limitation concerning the Year 9 Challenge Program

By way of selection, the Y9 Challenge program is specific to Year 9 only. As such, the overall benefit to the school may not be seen in the short term. The program itself is not focused on meeting the needs of the entire school. That being said, the second sample was arguably taken too close to the roll-out of this initiative to see any benefit within the data. A longitudinal study may be needed to examine the impact of this initiative over a period of time.

Limitation concerning changes to the Chapel programming

The change to remove the 'civics' component from the Chapel program was met with support from the Chaplin's office. While there were 12 Chapels before the second sample was taken, in the quantitative data, it is difficult to isolate the individual impact of Chapel on faith engagement. The Chapel program is an opportunity for students to volunteer and participate in faith engagement and development activities. It is interesting to note in Table 7 the measure of Perceived Exclusion Scale was higher in 2019 than in 2018. While there is insufficient data to show why this is so, it is helpful to note that the format of the Chapel programme remained effectively the same as years prior, except for the inclusion of a student-led item (the icebreaker).

It is plausible that as the Chapel programming has not seen significant change, so too, student perception of the program remains relatively unchanged. It is important to note that analysis of data from Table 10 indicates SDA's report higher engagement in faith engagement activities than students of Christian Non-SDA, and students of No Faith. It would be beneficial to investigate program elements that may work to engage the whole school rather than a subset.

Comment on Change Management – Parental Inclusion

It is important to note that Table 6 indicates a link exists between Parental Involvement and Faith Engagement ($r=.306$, $n = 346$, $p < 0.0001$). Addressing this connection was not part of the initiatives selected by the school. Interestingly, in Table 7, there is a drop in means within this area from 2.8405 in 2018 to 2.7654 in 2019 (though without statistical significance). It may be of benefit for the school to change its approach regarding managing the change, and to incorporate further work on the on-boarding of parents in regards to the initiatives the school is implementing, to ensure they are informed and involved.

Recommendations

The initiatives that were chosen by the school require time to embed and refine. While currently, there are established faith-based frameworks that deliver faith engagement and development content within the school, the benefit and impact of the changes may take several years to identify. It is therefore recommended that the school extend this study whereby it collects data to measure impact over a more extended period of time.

Chapter 6: Qualitative Results

In addition to the quantitative data, students were also invited to provide open-ended responses to questions related to their perceptions about faith engagement at school. The following are the questions asked of the students:

1. What parts of school life do you think do a good job in building your faith in God?
2. What do you think the school could do differently in helping your faith in God grow?
3. What example can you think of that shows that your teacher/s are interested in your faith growing?
4. Are there any other comments you would like to make about growing in your faith?

The following data were taken from the latest data collection (2019). The most common theme in relation to what the school does well to help them build their faith (reported by 52% of participants) was the opportunity given by teachers to explore the Bible in contexts such as morning worships, Chapel, Bible/Religion classes, and baptismal studies. For some, these times provided strength to help face things in life that they find hard.

"We have chapel and bible studies that help my friends and I get through hard times." [Yr 6, F, Seventh-day Adventist (SDA)]

Chapel times in general provided much comment by students, with reflections in relation to what they found particularly helpful.

"Listening to what God did to others. And when you need Him most you have to trust that he will help" [Yr 6, F, Christian (non-SDA)]

"I think it is the best time to be a part of God's love in chapel" [Yr 5, M, no faith background]

"...sometimes when special speakers come in to chapel if their talks are good that also builds my faith." [Yr 8, F, SDA]

"I think the praise and worship segments in Chapel help." [Yr 11, F, SDA]

"...it really connects me with God through singing." [Yr 7, F, SDA]

There were, however, students who took the opportunity to pushback in regards to the Chapel time. Those in the upper end of high school appeared to have less of an appreciation for what this time did for them spiritually.

"...chapels should but do not really..." [Yr 11, M, SDA]

"Chapels - to a lesser effect than they should ..." [Yr 11, M, no faith background]

In addition to comments on the Chapel time, 94 students (27%) made specific mention of Bible/Religion classes at school. Many students saw value in the material covered and reflected positively on its impact in engaging them with their faith journey.

"I think all the Bible classes have done a good job at building my faith." [Yr 6, F, Christian (non-SDA)]

"When we have bible lessons we learn more about God and builds our faith in him [Yr 7, F, Christian (non-SDA)]

Some students took time to further unpack what specifically impacts them about the Bible classes.

"We watch videos sometimes of people who have had experiences with God." [Yr 5, F, no faith background]

"Discussion with certain people, taking into account all different views ..." [Yr 11, M, Christian (non-SDA)]

"Explaining more deeper understandings of the Bible and outlining how to pray." [Yr 11, M, SDA]

"Being able to have open discussions in classes about God and being able to [have] questions that wouldn't usually be asked - I hope we can do more of this." [Yr 10, F, SDA]

"The teachers. They definitely love to talk about their beliefs and I tell to them about my religions differences and similarities." [Yr7, F, Christian (non-SDA)]

The daily worship time was also appreciated by a number of students, with 33 (9.6%) specifically mentioning the value of this time. As one student commented: *"Worship because we write a verse from the Bible and I learn more."* [Yr 6, F, no faith background]. A few students also focused on particular opportunities that appeared above the usual school program:

"Bible studies after school on Fridays …" [Yr 5, M, SDA]

"The year 9 challenge class." [Yr 10, M, SDA]

It also appears that students see the integration of faith into the various non-Bible classes throughout the school as being strong. As one student commented: *"We pray and talk about God in the majority of our classes and sometimes we don't even mean to."* [Yr 7, M, SDA]

In addition to formal aspects of the school program that has a positive influence, students outlined other aspects of their experience at school they appreciate. Although more challenging to define or quantify, they appear integral to the faith journey that students experience.

"The friendly and open atmosphere, with plenty of nature around the campus." [Yr 10, M, SDA]

"The positive attitude of leaders and teachers." [Yr 12, F, SDA]

"Teachers that have a similar belief in God." [Yr 7, F, SDA]

"Discussions between my peers about God." [Yr 12, M, SDA]

As outlined in the previous Chapter, those who do not have a faith-background have a significantly more negative perception of the school's attempts to build faith. A number of these students (n = 39, 11.3%) commented in this regard when asked what aspects of the school program most assisted them in the faith journey.

"None. It made me less interested in God." [Yr 9, F, no faith background]

"When I was young and my brain was easy to fool." [Yr 7, M, no faith background]

"I don't intend on building my faith." [Yr 10, F, no faith background]

"I don't want to build my faith in God!" [Yr 8, F, no faith background]

"We learn about the same stories all the time it gets boring no one cares anymore we need to learn about different things not the same boring stuff." [Yr 8, F, no faith background]

"By force feeding it its making me move away every day." [Yr 12, M, no faith background]

It needs to be noted that it was not exclusively those of a non-faith background who provided some pushback. Some who reported being from a faith family, provided their own perspectives as to how they felt in relation to the school's efforts to engage them positively in a faith journey and the reasons why.

"Not much, for my faith is built outside of school." [Yr 9, F, Christian (non-SDA)]

"I honestly don't think any of it helps. I do it all on my own and I don't need anyone coming into my business." [Yr 10, F, SDA]

"The thing they do for my faith is increase my knowledge of Bible stories but that isn't what is going to save me." [Yr 11, F, Christian (non-SDA)]

"We are forced to do bible classes but they don't give us the opportunity to learn about any other religion during these classes. I refuse to put my faith in Christianity as that is the only thing I have been forced to learn." [Yr 11, F, SDA]

Overall however, responses from students who have a faith background were of a more positive nature, with many finding personal benefit from the efforts of the school to engage them in faith activities.

"Opportunities to share my story have helped me to realise what God has done in my life and is strengthening my faith in him everyday." [Yr 12, F, SDA]

"I think this school is really helping my faith grow into what God wants me to become." [Yr 7, M, SDA]

"I hope I can know God better and have him in my life." [Yr 5, M, Christian (non-SDA)]

What my School should do Differently

Students were provided the opportunity to comment on the types of things they feel the school could do differently to facilitate their faith development. A number of students did not have anything to add in this regard, with 37 (10.7%) leaving this part of the survey blank, three reporting it was not applicable to them, 62 (18%) reporting there was nothing (or 'nothing much') that the school could do differently or better, 11 (3.2%) affirming that the school was doing well, 28 (11%) reporting they 'don't know' and 10 (2.9%) reminding us that they are non-believers and not interested in the question.

For those who had specific suggestions to share, the comments tended to fit into one of three categories; things the students would like to see more of, things they would like to see less of, and things they would like to see done differently.

In regards to things that the students would like to see more of, the following are the key themes: longer worship times (n = 8, 2.3%), more opportunities to talk about God and grow in faith (8), a stronger focus on the personal faith journey of students (9), more time to read the Bible in class (10), more 'weeks of worship' (3), more and/or longer chapels (3), more creative, engaging and interactive Bible classes (28) and more in-depth Bible-studies (2).

"Have longer chapels and connect to the teens better." [Yr 10, M, SDA]

"More weeks of worship and help focus on people that want help finding God." [Yr 9, M, SDA]

"Give us 5 minutes to read the bible by our self every so often." [Yr 5, F, no faith background]

Suggestions by students as to what there should be 'less of' included: less 'academic faith' (graded Bible classes) (n = 4, 1.1%), less Bible topic repetition (3, 0.9%), less 'faith force' (42, 12%), less 'faith-discrimination' (10, 3%), and less Bible classes and Chapel (or make them optional) (14, 4%).

"Not make everything about assignments and tests and just keep religion separate out of school work" [Yr 11, F, SDA]

"Be less pushy about being a SDA, it comes across as harsh and pressuring." [Yr 12, F, Christian (non-SDA)]

"If we don't believe in him, they need to accept it." [Yr 8, F, no faith background]

"Not be so forceful sometimes. Some people need to understand that some personal journeys take different amounts of time". [Yr 12, F, no faith background]

There were 34 (9.9%) students who commented specifically on the Chapel time, expressing their belief that there were things that could be done to make it more effective in their faith journey. Comments focused on aspects such as Chapel speakers (variety), overall engagement, student voice, and ensuring that the time focuses on the spiritual and not on things that can be 'announced' elsewhere.

"There is a culture in which anything of a religious [nature] is, in a way, laughed at by the school population. People at chapel laugh at those on stage and don't get involved in any way- whether they are Christians or not. The religion program is run by some amazing people, but I feel like the program itself is actually not right for our demographic." [Yr 10, F, SDA]

"I think that having speakers in Chapel that appeal well to the kids at school. When we have different people, it's likely that kids will listen more. Doing more surveys to ask the kids what they like or don't like so that the programs are better received." [Yr 11, M, SDA]

"Inviting more interesting young people to share their testimony ..." [Yr 10 – F, SDA]

"Getting different speakers from outside the school who have had different life changing experiences..." [Yr 10, F, SDA]

How I know my Teacher/s are Interested in my Faith Journey

This area drew the least amount of responses including 143 (41.4%) who either left it blank or said they did not know and a further five who reminded us that they had no interest in faith growth! Of those that did respond, 58 (16.8%) mentioned the current forms of organised faith engagement such as Chapel, morning worships, and bible/religion classes.

"We are required to attend chapel once a week to learn the work of God and people do grow to have a big interest or want to explore their faith." [Yr 10, F, Christian (non-SDA)]

"They sometimes pray for certain people that need prayers." [Yr 7, M, Christian (non-SDA)]

"They talk to me about it In bible class." [Yr 6, F, SDA]

The largest area of comment, however, was in regards to authentic teachers who show a personal demonstration of interest in them as individuals (n=108, 31.3%). This included themes such as: authentic care, genuine personal interest, effort, support, and respect. Students expressed appreciation for the way the teachers engaged them at a personal level.

"[They] ask how your life is at home how our relationship is with God and ways we could help that." [Yr 7, M, SDA]

"They ask about how we are feeling and try to make aspects of class and chapel personal." [Yr 10, F, SDA]

'"Constantly reminding us that there is a God and he loves and has a purpose for us." [Yr 9, F, Christian (non-SDA)]

"That they go to a lot of effort to teach their religion." [Yr 9, F, Christian (non-SDA)]
Seven students expressed appreciation for the respect the teachers show to other faiths and that they do not feel pressured.

"They talk in what I believe in, and what similarities I have in my culture compared to the Christian world." [Yr 9, F, non-Christian faith]

"Most teachers are open to questions about Christianity and are accepting of both Christians and non-Christians." [Yr 10, F, SDA]

The additional effort that teachers go to was specifically commented on by students, with (n = 29, 8.4%) students who commented in this area.

"One teacher takes bible studies for myself and a group of friends during a lunchtime every week." [Yr 10, M, SDA]

"They go around 1 on 1 to help us in bible class to explain things and answer questions." [Yr 6, F, SDA]

"She wants to see us in heaven." [Yr 5, M, SDA]

"I am the first 7day adventist in my family, I attend bible studies on Friday night and salt that is at college church and then every Saturday go to church and on Sundays I go to bible studies again." [Yr 9, F, SDA]

Discussion

It is common for faith-based schools to represent a wide variety of faith backgrounds, with each group reflecting unique perspectives on the opportunities provided for faith engagement. While those who do not have a faith background (and who expressed no interest in developing one) often pushed back at this aspect of the school program, those who had a faith background, even one other than Christianity, were usually positive about the opportunities and the respect afforded them.

"My teachers always listen with interest to what everyone has to say and they make suggestions about them. They also encourage you to do good deeds and help other people and treat them nicely. My teachers are a great influence on their students' life." [Yr 7, F, non-Christian faith]

"They asked me what belief I am, if I say Hindu, some teachers say, 'isn't that the oldest religion'. Each teacher knows that my faith is growing by the day goes past." [Yr 10, M, non-Christian faith]

The qualitative data, however, strongly reinforced the results of the quantitative data reported in the previous chapter, in regards to the negative attitudes of many of the students who do not come from a faith background of any kind. One of the limitations of this study however is that information was not collected in regards to how long students had been at the school. It would be valuable to know if (for example) if students from a non-faith background had completed their primary education at the school, demonstrated significantly different attitudes towards faith engagement than those who had come into the school for the first time in high school.

For those who report being from a faith background, however, and are keen to continue to grow their faith, strong evidence exists for the effectiveness of what the school provides. While they have provided some critique in regards to ways to increase engagement in programs such as Chapels, Weeks of Worship and Religious Studies classes, it is evident that they find within the school effective means to support their desire to develop in their faith.

"I think this school is really helping my faith grow into what God wants me to become." [Yr 7, M, SDA].

"I feel disconnected from God in the last few months, but feel blessed by coming to this school." [Yr 11, M, SDA].

"I want to learn more about faith and believing in God" [Yr 8, F, SDA].

"They convince us that God is real because they want our faith to grow." [Yr 9, F, non-Christian faith]

"They tell everyone that their lives have changed for the better with God and that they want to show us how good He is." [Yr 11, F, Christian (non-SDA)]

As mentioned in the previous chapter, there is considerable evidence to indicate that positive perceptions of school climate decrease as adolescents age. The current research suggests that this is also true in regards to adolescent attitudes towards faith engagement. This accords with other literature that observes a decrease in spiritual interest during the adolescent years (Michaelson et al., 2019). Some argue that these changes are a natural result of changes in cognition and in the emergence of independent thinking that develops during adolescence (Crone, 2017; Kloep, 2016). Hoekstra (2012) suggests that during this time the youth are in particular need of adults who can fill supporting roles, giving adolescents the opportunity to explore ideas about spirituality in a safe environment.

Student-Teacher Relationships

It is evident from many of the student comments that the personal one-on-one relationships have a significant impact on their faith growth. Comments such as: *"they care"* [Yr 5, M, no faith background], *"they listen"* (Yr 6, F, no faith background) and *"helping us in tough times"* [Yr 5, M, no faith background] – were particularly evident within the Year 5-6 cohort.

The importance of positive student-teacher relationships in facilitating faith development has been acknowledged extensively within the literature. "Meaningful teacher-student relationships play a significant role in student engagement" (Coria-Navia et al., 2017). This time spent developing relationships subsequently adds authenticity when sharing spiritual truths (Hoekstra, 2012), providing a context for support, motivation and a "sense of fit" (Derrico et al., 2015, p. 298). A study by Horan (2017) for example, reported on a mixed methods study involving 504 secondary educators and their perceptions about spiritual formation. One of the key findings was in relation to the importance of relationships. They concluded that "educators must develop personal, one-on-one relationships with millennials as role models and mentors" and that "one-on-one rapport, mutual respect, and relationship building between educators and teenagers is essential to spiritual growth and will have 'immeasurable effects'" (Horan, 2017, p. 66).

Student-voice

Another important theme relates to that of 'student voice' and an openness to listen to alternative points of view. As mentioned in the previous Chapter, the importance of student voice has been highlighted in the literature in regards to building positive school climate (Fleming, 2017; Lewis & Burman, 2008; Quinn & Owen, 2016). A number of students expressed their appreciation of this within the school.

"Mr XDF letting us ask questions and being okay with us having differences." [Yr 9, M, SDA]

"Open discussions in classes about God and being able to ask questions that wouldn't usually be asked." [Yr 10, F, SDA]

"Some teachers will strike up faith based conversations in which they ask for our personal opinions in a genuine manner." [Yr 11, M, SDA]

The importance of student-voice in regards to faith development has been clearly identified within the literature. A study reported by Andy Wolfe (2018) for example, reported on data collected from 10 faith-based schools, through student focus-groups. He concluded that the Christian ethos of a school is created through the interaction of all participants within the school community and furthermore that students need an effective voice within this process.

"These young people are active agents, they make an essential contribution to the nature of the ethos. This shows that the Christian ethos of a school cannot be imposed: it is dependent on the contribution of all members of the school community." (Wolfe, 2018, p. 176)

For students, having a voice helps to provide relevancy to the learning process (Ateh & Charpentier, 2014). Trott (2013, p. 489) goes as far as to claim that "learning cannot occur if learners are not assured a significant voice in their learning". It is evident that students in the current generation expect ongoing dialogue and will be unlikely to develop a Christian identity without this opportunity (Skinner, 2018).

The current study would suggest that providing further opportunities to engage students in constructive dialogue will prove valuable, positively impacting school climate through the increased use of student voice. This dialogue will also be useful in demonstrating to students that the school is attentive and responsive to the data collected and that their voice is considered important when it comes to ongoing school improvement.

While many students are satisfied with the current methods for engaging in faith activities, there are those who provide substantial pushback within this aspect of school life. The ability to engage this group in open conversation may provide a vehicle to increase mutual understanding and a pathway by which both perspectives can be responded to in a positive manner. It also offers students an additional insight into the ethos of Christianity, by modelling tolerance and respect towards those with differing world-views.

Conclusion

It is encouraging that the majority of students from a faith background have an interest in continuing to engage in their personal faith journey. While some students 'push back' on what they consider to be 'faith pressure', many express an appreciation for the considerable opportunities provided by the school. While it is acknowledged that the current generation are inclined to approach religion with a fair degree of scepticism, they still "expect their faith to make a difference and have meaning on their lives" (Skinner, 2018). The student's comments would indicate that for many, their faith is making a difference and indeed has meaning in their lives.

Students from all backgrounds freely provided a number of suggestions as to how they believe their faith journey could be enhanced within the school setting. It would be valuable for schools to run regular focus groups with different year levels in order to tap into the various suggestions that students have. This would provide an ongoing opportunity for dialogue and demonstrate to students that their ideas are valuable and integral to the ongoing faith development plans at school.

As mentioned in the previous Chapter, a focus on school climate and on aspects most relevant to the individual school context could be valuable and may provide benefits for the faith engagement endeavours of the school. Indeed, for those who push back at the more overt forms of faith development, this area may provide a useful base for the success of future initiatives

It will also be useful for future studies to differentiate between those who have been at the school many years vs those who are new to the school. This will assist in determining the point at which student attitudes may be diverging from those the school would wish to incorporate as part of its 'cultural norms'.

It is clear from the student responses that faith-based education is having a significant impact on a large number of students. The desire to grow in faith and to have a meaningful and relevant journey is alive and well, and the efforts of the school to facilitate this journey is valued and appreciated.

Chapter 7: Structural Equation Modelling

In order to further explore relationships between the variables, structural equation modelling [SPSS Amos (26)] was used to construct models representing the influence of: observed variables on *faith engagement* (Figure 1), school *climate* variables on each other (Figure 2), and *faith engagement on school climate* (Figure 3). The approach was based on the hypotheses that;
a) variables such as faith background, year level, school satisfaction and school climate, have a significant impact on faith engagement;
b) school climate and school satisfaction variables have a significant impact on each other;
c) faith engagement has a significant impact on school climate.

A factor analysis (PCA: direct oblimin) was performed on the school satisfaction and school climate scales. Both the component analysis (Eigenvalues) and scree plot suggested a single factor solution was suitable and thus a single school climate variable was created from the individual scales (KMO = .934, p = .000). In addition, the *faith background* variable was transformed into two categories;
a) students reporting a faith-background (70%); and
b) students reporting a non-faith background (30%).

The Three Models

As shown in Figure 1, *faith tradition, year level and school climate* (including school satisfaction) demonstrated a significant influence on faith engagement variables [CFI = 1.0, TLI = .997, GFI = .998, RMSEA = .024]. Of particular note is the strong impact that *faith tradition had on attitudes towards Christian practice* (β = -.66, p < .001) and the strong impact that attitudes towards Christian practice exerted on *personal faith engagement* (β = .59, p < .001). School climate likewise had a significant influence on personal faith engagement (β = .21, p < .001).

A number of relationships within the school satisfaction and school climate variables were examined (see Figure 2). Within this model, *school satisfaction, student teacher relationships and connectedness to school* were shown to be influenced by a number of the other climate variables [CFI = .999, TLI = .997, GFI = .994, RMSEA = .021]. It is interesting to observe the significant influence that *order, safety and discipline had on student-teacher relationships* (β = -.45, p < .001) and on *connectedness to school* (β = -.34, p < .001). *Student-teacher relationships* in turn demonstrated an influence on *connectedness to school* (β = -.26, p < .001) and school satisfaction (β = -.30, p < .001).

The model displayed in Figure 3 illustrates the reciprocal relationship between school climate and faith engagement [CFI = .999, TLI = .997, GFI = .994, RMSEA = .021]. As with the climate scales, a factor analysis (PCA) was performed on the three faith engagement scales. Evidence again suggested a single-factor solution (KMO = .742; p = .000). The model illustrated a significant impact of faith engagement on opportunities for engagement (β = -.54, p < .001) with indirect influences on both *order, safety and discipline and on student-teacher relationships.*

School Climate and Faith Engagement Models – Structural Equation Modelling

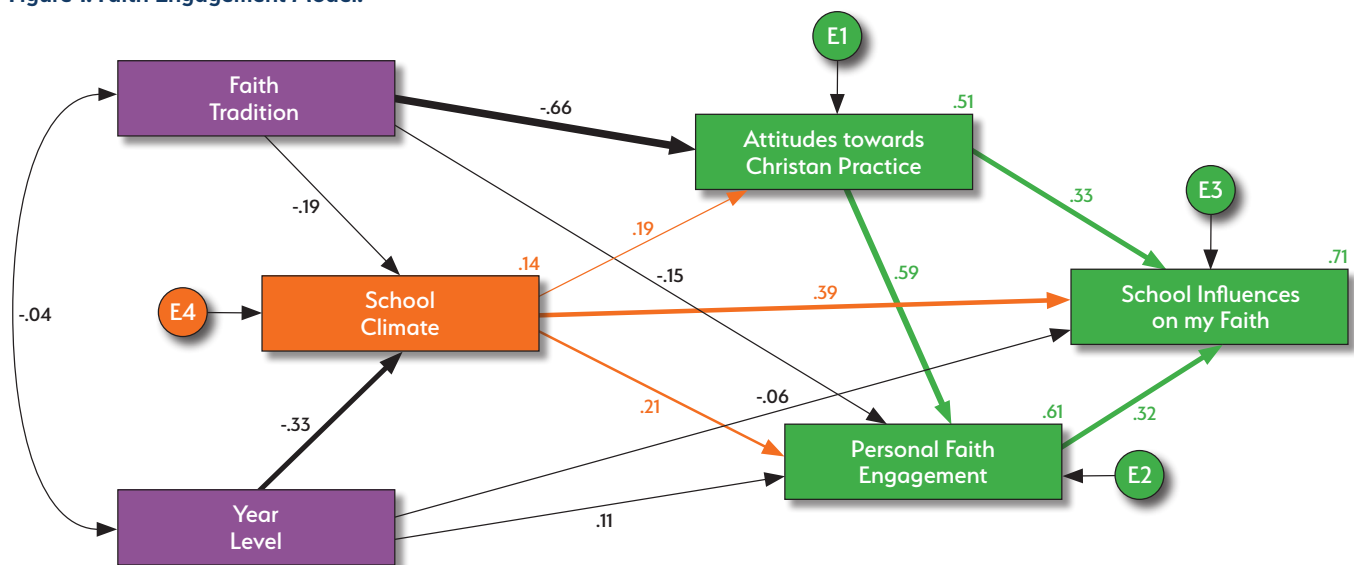**Figure 1: Faith Engagement Model.**
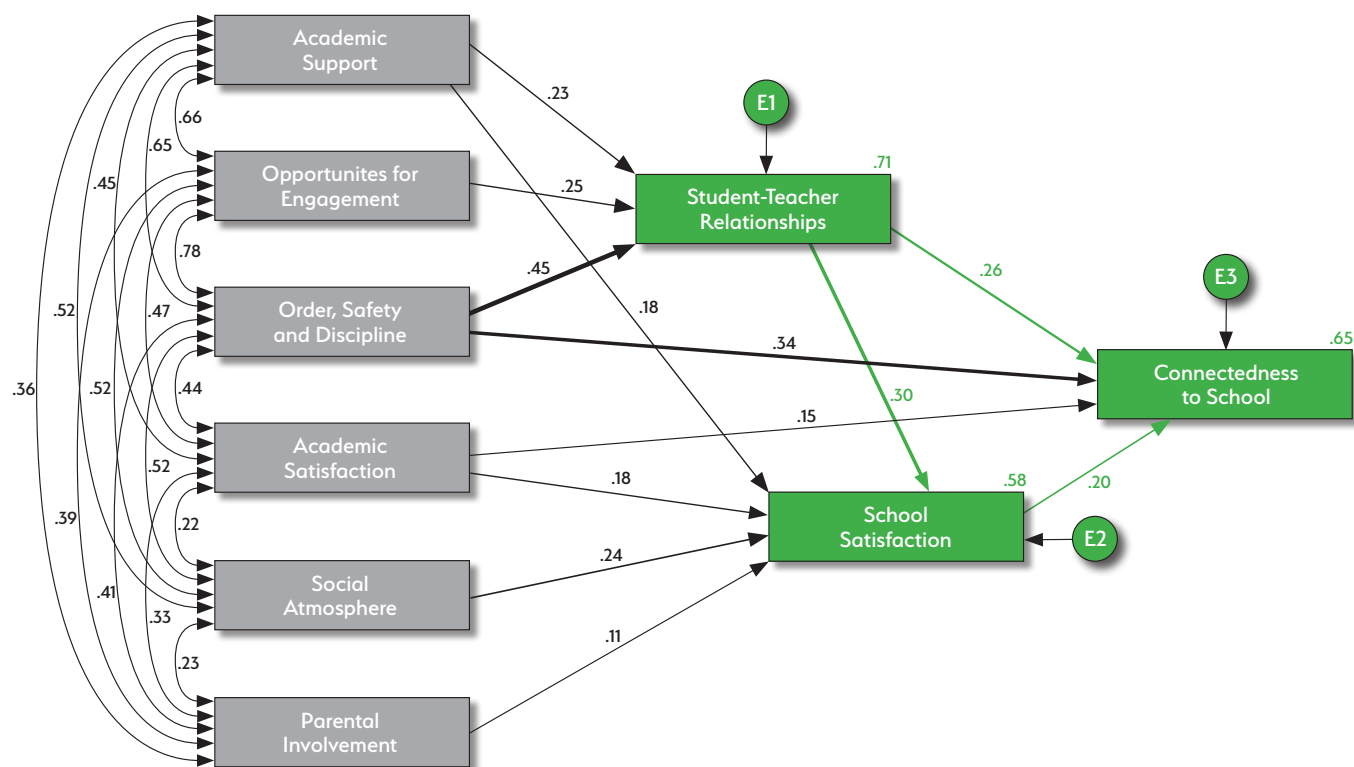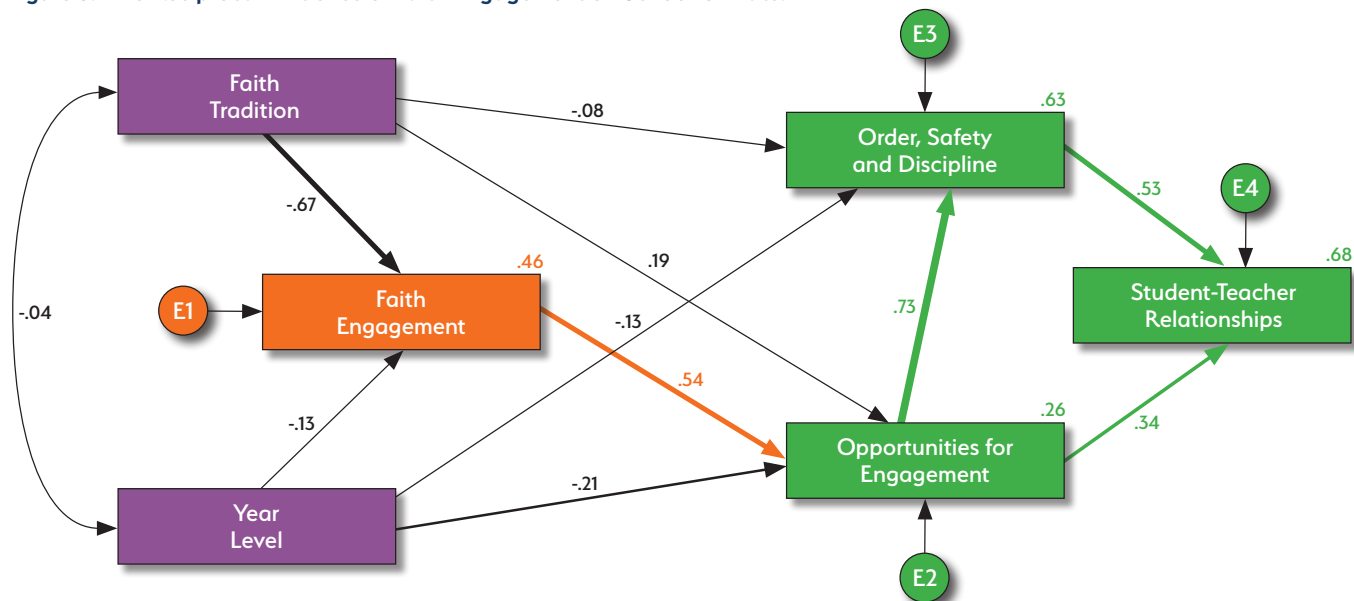
Figure 2: School Climate Model.

Figure 3: The Reciprocal Influence of Faith Engagement on School Climate.

As illustrated in Figure 1, the squared multiple correlations (R^2) for the faith engagement variables were .51 (Attitudes towards Christian Practice), .61 (Personal Faith Engagement) and .71 (School Influences on my Faith). Thus a significant proportion of the faith engagement variables were accounted for by faith tradition, gender, year level, school climate and school satisfaction. Likewise Figure 3 illustrates the significant proportion of school climate influence accounted for by the influence of faith tradition, year level and faith engagement [order safety and discipline (.63), opportunities of engagement (.26), and student-teacher relationships (68)].

Chapter 8: Discussion & Final Recommendations

This study hypothesised that significant relationships exist between school climate and faith engagement, in faith-based schools. As indicated earlier (Table 6), a number of significant positive correlations were found between these two sets of variables. Results also demonstrated a significant relationship between school satisfaction and faith engagement. School satisfaction has been shown to be positively associated with school climate and to numerous academic and psychological outcomes (DeSantis King et al., 2006; Suldo, Bateman, & Gelley, 2014; Zullig et al., 2018). The significant relationships between school climate, school satisfaction and faith engagement may suggest that a positive increase in school climate and school satisfaction would result in increased measures of faith engagement. Longitudinal studies however will be needed to substantiate this hypothesis.

This link between school climate and faith engagement has been suggested by other authors, where positive one-on-one relationships are viewed as essential to spiritual formation (Horan, 2017). It is proposed that it is only when the student-teacher relationship is strong that the student will accept the teacher's actions in connecting faith and learning (Hoekstra, 2012). Thus the development of faith should not be viewed as separate from other aspects of a student's experience.

The further finding of this study was that students who come from a Christian family, will be more likely to view the school's faith engagement initiatives in a positive light. The results substantiated this theory, indicating that the effect size on each variable was large (see Table 10). Moreover, the findings indicated that students from a non-faith background were also more likely to view the school climate more negatively and to report lower school satisfaction, than those who came from a faith (Christian) background. While the effect size in each case was small, it was nonetheless significant and suggests that having a faith background is a predictor of viewing school climate more positively for students within a faith-based school.

Attitudes towards Faith Engagement

The effect on attitudes towards faith engagement (both personal and communal) between those from a faith-background vs those with no faith-background was significant, with those not of a faith-background much less likely to report positive attitudes. It is useful to consider the impact of these less positive attitudes on peer group norms. The social cognitive theory of Albert Bandura (2001) claims that a person's behaviour, cognition, personal factors and environment, operate in a mutually interactive manner, each helping to determine the other. Indeed, there is strong evidence in the literature of the impact of social networks and of peer influence on the attitudes and behaviours of those within the peer group (for example: Buhs, Ladd, & Herald, 2006; Faris & Ennett, 2012; Fortuin, van Geel, & Vedder, 2015; Ladd, Ettekal, Kochenderfer-Ladd, Rudolph, & Andrews, 2014; Shin & Ryan, 2014). In short, "adolescents who like each other may become more similar to each other", in both attitudes and behaviour (Fortuin et al., 2015, p. 887).

It would thus be difficult to argue that the less positive attitudes of particular groups towards faith will not have an effect on the attitude and behaviour of others. That is not to suggest however that all non-faith students viewed faith engagement negatively or that all Christian students viewed it positively, with qualitative feedback making it evident that this is not the case. Nonetheless, it is important for Christian schools to recognise that while they may view their role as missional in terms of impacting those not of a faith-background, there would arguably need to be a corresponding acceptance that the significantly lower attitudes towards faith practice will influence the cultural norms within the school. This provides a challenge to Christian schools, not just in regards to enrolment policies, but in the ability to differentiate faith engagement activities in order to engage students of a non-faith background in a way that is both attractive to and supportive of their individual journeys. The ability for faith-based schools to create an equal sense of belonging regardless of the background of the student may be a useful challenge to consider.

One of the limitations of the current study was the absence (within the student survey) of a question to indicate how long a student had been at the school. It would be valuable to determine if those from a non-faith background who had been in the school since primary school for example, had different attitudes in middle or upper high school, compared with those who joined the school at a later time. This will be useful to add to the survey when administering in the future.

School Climate Variables

The key role that particular climate variables play in determining positive outcomes for students has been well documented. Notable examples include *student-teacher relationships, connectedness and belonging, and order, safety and discipline* (for example: Lewis, 2009; Petrie, 2014a, 2014b; Reaves, McMahon, Duffy, & Ruiz, 2018; Syvertsen, Flanagan, & Stout, 2009; Zullig et al., 2018). Of note within the current study however (and in addition to the afore mentioned domains) is the significance of the *opportunities for engagement* variable (see Figure 2). The more that students report being actively (and equally) included in school-life, the more likely they are to report positive *student-teacher relationships* ($\beta = .34$, $p < .001$) and positive attitudes towards *safety, order and discipline* ($\beta = .73$, $p < .001$).

The area of 'engagement' referred to above, includes the important facet of 'student voice' where the opportunity for students to reflect, discuss and dialogue on school issues that affect them has been increasingly seen as important within the literature (for example: Fleming, 2017; Lewis & Burman, 2008; Quinn & Owen, 2016). The success of schools in effectively harnessing the power of student voice is likely to be reflected in more positive measures of both school climate and of faith engagement.

Faith Engagement and non-Adventist Christian Students

One of the outcomes not predicted within this study was the difference between Christians from a non-SDA background and those from SDA families, in self-reported attitudes towards faith engagement. The mean score for Personal Faith Engagement for example was 3.58 (SDA) compared to 3.09 (non-Adventist Christian). This may suggest that there are initiatives particular to the SDA Church that are having a significant impact on the faith attitudes and engagement of their youth. The use of focus groups in future research may provide some valuable insights into these connections. It would be valuable to explore non-school influences that students perceive to have positively impacted their faith journey.

The identification of differences in self-reported attitudes between Christians from a non-SDA background and those from SDA families may prompt SDA schools to further investigate the efficacy of current faith engagement initiatives, which by design are delivered to meet the students at their level. While it is shown in the data that students identify faith engagement activities as part of the school's faith-based framework, it will be important for schools to hear and respond to the critical feedback of the non-Adventist Christian students and the students of no faith. While Adventist Students my affirm the faith based initiative, the perspectives of the Christian (non-SDA) and No Faith cohort, will allow schools useful insight; which may translate to a more impactful and relevant faith learning experience for all student represented.

The Impact of Year Level

In common with other research (for example: Kim, Schwartz, Cappella, & Seidman, 2014; Magen-Nager & Azuly, 2018), this study notes the decline in positive attitudes towards school climate and likewise towards faith engagement, as students' progress through high school. The significant social and physical changes that occur during this time provides an ongoing challenge for schools. The literature suggests that there may be a need to adjust teacher and administrative social processes, provide additional support at the individual student level, and consider better methods for understanding and impacting peer networks (Farmer, Hall, Petrin, Hamm, & Dadisman, 2010; Kim et al., 2014; Shriberg et al., 2017).

While school-wide faith engagement initiatives and Year level interventions may focus on developmental year specific social-emotional need, there remains space for faith-based schools to further explore opportunities to connect with students in more open platforms. This study notes that students express a wish to be heard and for their faith development to be supported through access to non-judgemental listening and the fostering of open conversations. While curriculum delivery in the traditional classroom provides opportunities for discussion and rigour through topical investigation, the content delivery often culminates in an assessment of learning. While the student data validates this as a formal aspect of faith-based education and is seen as an important part of the faith-based learning framework, students indicate a desire to have their views heard and challenged in a less structured forum than that of a traditional class format. In this way, it is important for schools to provide at each year a safe thought-sharing environment that promotes a transparent and open approach to faith engagement and development.

Conclusion

It should be encouraging for faith-based schools to note the strong relationship that exists between school climate and faith engagement. Structural equation modelling suggests that these effects are reciprocal and are most likely cyclical in nature. It is hypothesised that well directed efforts to increase school climate will have a significant effect on student attitudes and behaviour towards Christian practice (and vice versa), though longitudinal research will be needed to substantiate this hypothesis. It will be important to regularly measure both sets of constructs and to gather qualitative data from student and staff, in order better understand the experience of each within the school context.

It will be valuable for faith-based schools to consider appropriate differentiation of faith engagement opportunities so as to meet the needs of students from a non-faith background and to provide opportunities for them to engage in positive and meaningful ways.

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Appendix A: Faith Engagement Survey

This survey is totally anonymous and will not affect in any way how teachers (or anyone else at your school) treats you or thinks about you.

Please select (circle) your year level and gender:

Year 5   Year 6   Year 7   Year 8   Year 9   Year 10   Year 11   Year 12   Male   Female

The following statements all relate to your personal belief and faith practice. Tick or cross the box that best describes how you feel about each statement:

My Personal Faith Beliefs & Practices	Agree (A)	Slightly Agree (B)	Neither (C)	Slightly Disagree (D)	Disagree (E)
1. Prayer is an important part of my life.					
2. I study my Bible outside of school time.					
3. I feel comfortable to share what I know about God with other people.					
4. I talk with my friends about God outside of class.					
5. I usually feel sure about the things I know God wants me to do.					
6. I get sick of hearing about God all the time at school.					
7. I have no interest in being a Christian.					
8. I believe my life is better without God.					
9. I don't believe in prayer.					

The Source of the Impact on my Faith	Agree (A)	Slightly Agree (B)	Neither (C)	Slightly Disagree (D)	Disagree (E)
10. The student leaders in our school are a positive influence on my faith in God.					
11. Our Bible classes at school strengthen my faith in God.					
12. My teachers are happy for me to ask questions about God.					
13. There are teachers who take a personal interest in my faith journey.					
14. My school friends are a positive influence on my desire to know God better.					
15. I enjoy the worship times at school.					
16. The school gives plenty of opportunities for me to grow in my faith at school.					
17. I believe that the faith journey of most of my teachers is real.					
18. I wish we didn't have Bible classes at school.					
19. My friends are not interested in God.					
20. The faith beliefs of my family are similar to those of this school.					

Write your responses to the following under each question

1. What aspects of school life are most important to you in developing your faith in God?

_____

_____

2. What do you believe the school could do differently to help your faith in God to grow more?

_____

_____

3. What example can you think of that shows your teacher is interested in your faith growing?

_____

_____

4. Do you have any comments about what your think about this survey or how it could be improved?

_____

_____

Scales & Alphas (Sample: N=347)

(A) Attitudes to Christian Practice [Cronbach's Alpha = .948]
Prayer is an important part of my life.
I get sick of hearing about God all the time at school.
I have no interest in being a Christian.
I believe my life is better without God.
I don't believe in prayer.

(B) Personal Faith Engagement [Cronbach's Alpha = .860]
I study my Bible outside of school time.
I feel comfortable to share what I know about God with other people.
I talk with my friends about God outside of class.
I usually feel sure about the things I know God wants me to do.

(C) School Influences on my Faith [Cronbach's Alpha = .895]
The student leaders in our school are a positive influence on my faith in God.
Our Bible classes at school strengthen my faith in God.
My teachers are happy for me to ask questions about God.
There are teachers who take a personal interest in my faith journey.
My school friends are a positive influence on my desire to know God better.
I enjoy the worship times at school.
The school gives plenty of opportunities for me to grow in my faith at school.
I believe that the faith journey of most of my teachers is real.
I wish we didn't have Bible classes at school.
My friends are not interested in God.
The faith beliefs of my family are similar to those of this school.

Appendix B: Effect Sizes: Faith Background & Year Level

The Influence of Faith Background on School Climate Responses

Scales	SDA	Christian Non-SDA	No Faith	Results from ANOVA
School Satisfaction	3.98	4.20*	3.70*	F(2, 351) = 5.02, p = 0.007 0.028 (eta squared) = small effect *Christian Non-SDA vs No Faith [MD = .50; p = 0.06]
Student-Teacher Relationships	3.56*	3.72 **	3.28* **	F(2, 351) = 6.07, p = 0.003 0.033 (eta squared) = small effect *SDA vs No Faith [MD = .28; p = 0.23] **Christian Non-SDA vs No Faith [MD = .44; p = 0.003]
Order, Safety & Discipline	3.50*	3.66**	3.19* **	F(2, 350) = 6.48, p = 0.002 0.036 (eta squared) = small effect *SDA vs No Faith Background [MD = .31; p = 0.015] **Christian Non-SDA vs No Faith [MD = .47; p = 0.003]
School Appearance	3.93*	4.20**	3.81* **	F(2, 350) = 4.87, p = 0.008 0.027 (eta squared) = small effect *SDA vs Non-SDA Christian [MD = .27; p = 0.05] **Non-SDA Christian vs No Faith [MD = .39; p = 0.006]
Social Atmosphere	3.82	4.04*	3.60*	F(2, 177.57) = 5.07, p = 0.006 [Welch] 0.028 (eta squared) = small effect *Non-SDA Christian vs No Faith [MD = .45; p = 0.005]
Opportunities for Engagement	3.56	3.80*	3.33*	F(2, 349) = 6.57, p = 0.002 0.036 (eta squared) = small effect *Non-SDA Christian vs No Faith [MD = .48; p = 0.001]
Parental Involvement	2.87*	2.82	2.56*	F(2, 351) = 3.52, p = 0.031 0.020 (eta squared) = small effect *SDA vs Non Faith [MD = .31; p = 0.027]

The Influence of Faith Background on Faith Engagement Scales

Scales	SDA	Christian Non-SDA	No Faith	Results from ANOVA
Personal Faith Engagement	3.58***	3.09***	1.95***	F(2, 350) = 111.4, p = 0.000 0.76 (eta squared) = large effect *SDA vs Non-SDA Christian [MD = .49; p = 0.001] **SDA vs No Faith [MD = 1.63; p = 0.000] ***Christian Non-SDA vs No Faith [MD = 1.14; p = 0.000]
Attitudes Towards Christian Practice	4.46*	4.16**	2.45* **	F(2, 350) = 165.6, p = 0.000 0.49 (eta squared) = large effect *SDA vs No Faith [MD = 2 .01; p = 0.000] **Christian Non-SDA vs No Faith [MD = 1.71; p = 0.000]
School Influences on my Faith	3.74***	3.44***	2.75***	F(2, 351) = 57.8, p = 0.000 0.25 (eta squared) = large effect *SDA vs Non-SDA Christian [MD = .29; p = 0.19] **SDA vs No Faith [MD = 1.00; p = 0.000] ***Christian Non-SDA vs No Faith [MD = .70; p = 0.000]

The Influence of Year Level on Responses to School Climate Scales

Scales	Year 5-6	Year 7-8	Year 9-10	Year 11-12	Results from ANOVA
School Satisfaction	4.58***	3.85*	3.72**	3.52***	F(3, 364) = 19.2, p = 0.000 0.14 (eta squared) = large effect *5-6 vs 7-8 [MD = .73; p = 0.000] **5-6 vs 9-10 [MD = .87; p = 0.000] ***5-6 vs 11-12 [MD = 1.06; p = 0.000]
Student-Teacher Relationships	3.95***	3.40*	3.27**	3.36***	F(3, 364) = 12.83, p = 0.000 0.10 (eta squared) = medium effect *5-6 vs 7-8 [MD = .55; p = 0.000] **5-6 vs 9-10 [MD = .68; p = 0.000] ***5-6 vs 11-12 [MD = .59; p = 0.000]
Connectedness to School	3.56***	2.87*	2.72**	2.61***	F(3, 364) = 24.82, p = 0.000 0.17 (eta squared) = large effect *5-6 vs 7-8 [MD = .68; p = 0.000] **5-6 vs 9-10 [MD = .83; p = 0.000] ***5-6 vs 11-12 [MD = .94; p = 0.000]
Academic Support	4.27***	3.77*	3.70**	3.70***	F(3, 196.37) = 12.76, p = 0.000 [Welch] 0.10 (eta squared) = medium effect *5-6 vs 7-8 [MD = .50; p = 0.000] **5-6 vs 9-10 [MD = .56; p = 0.000] ***5-6 vs 11-12 [MD = .53; p = 0.000]
Order, Safety & Discipline	3.99***	3.39*	3.13**	3.14***	F(3, 363) = 19.34, p = 0.000 0.14 (eta squared) = large effect *5-6 vs 7-8 [MD = .60; p = 0.000] **5-6 vs 9-10 [MD = .86; p = 0.000] ***5-6 vs 11-12 [MD = .84; p = 0.000]

Scales	Year 5-6	Year 7-8	Year 9-10	Year 11-12	Results from ANOVA
School Appearance	4.21* ** ***	3.79*	3.84**	3.88***	$F(3, 363) = 5.47$, $p = 0.001$ 0.04 (eta squared) = small effect *5-6 vs 7-8 [MD = .42; p = 0.001] **5-6 vs 9-10 [MD = .37; p = 0.012] ***5-6 vs 11-12 [MD = .32; p = 0.044]
School Atmosphere	4.16* ** ***	3.72*	3.67**	3.57***	$F(3, 364) = 7.19$, $p = 0.000$ 0.06 (eta squared) = Medium effect *5-6 vs 7-8 [MD = .44; p = 0.004] **5-6 vs 9-10 [MD = .49; p = 0.003] ***5-6 vs 11-12 [MD = .58; p = 0.000]
Perceived Exclusion	2.88*	3.14	3.38*	3.20	$F(3, 197.91) = 4.25$, $p = 0.009$ [Welch] 0.03 (eta squared) = small effect *5-6 vs 9-10 [MD = .50; p = 0.003]
Opportunities for Engagement	4.05* ** ***	3.39*	3.28**	3.37***	$F(3, 194.05) = 17.7$, $p = 0.000$ [Welch] 0.13 (eta squared) = medium effect *5-6 vs 7-8 [MD = .67; p = 0.000] **5-6 vs 9-10 [MD = .77; p = 0.000] ***5-6 vs 11-12 [MD = .68; p = 0.000]
Parental Involvement	3.00*	2.85	2.65	2.47*	$F(3, 364) = 4.48$, $p = 0.004$ 0.04 (eta squared) = small effect *5-6 vs 11-12 [MD = .52; p = 0.004]
Academic Satisfaction	3.15*	2.85	2.64*	2.76	$F(3, 363) = 3.41$, $p = 0.018$ 0.03 (eta squared) = small effect *5-6 vs 9-10 [MD = .51; p = 0.014]

The Effect of Year Level on Responses to Faith Engagement

Scales	Year 5-6	Year 7-8	Year 9-10	Year 11-12	Results from ANOVA
School Influences on my Faith	3.76* ** ***	3.25*	3.23**	3.19***	$F(3, 199.16) = 9.4$, $p = 0.000$ [Welch] 0.04 (eta squared) = small effect *5-6 vs 7-8 [MD = .51; p = 0.000] **5-6 vs 9-10 [MD = .53; p = 0.000] ***5-6 vs 11-12 [MD = .57; p = 0.000]

SCHOOL CLIMATE AND FAITH ENGAGEMENT

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