High School Worship Assembly and Student Faith Maturity

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A thesis
submitted to the Faculty of Education,
Avondale College,
in partial fulfilment of the requirements
for the award of the degree
Bachelor of Arts / Bachelor of Teaching (Honours).

24th of October, 2001

I hereby certify that the work embodied in this thesis
is the result of original research
and has not been submitted for a higher degree
to any other University or Institution.

_____

Leighton Charles Heise

Dedication

With love
to Chantal.

In young life and faith,
she inspires and motivates a brother
who stands in awe.

Acknowledgements

The following valuable individuals deserve the thanks of an otherwise floundering researcher.

I wish to thank my academic supervisor, Dr. Peter Beamish, for his valuable assistance in the conducting of this research. In particular I wish to thank Peter for his enthusiastic spirit, good-natured guidance, professional wisdom and willingness to help which enabled the completion of this study. Many thanks, Peter.

The consistent care, patience and professional advice of Cedric Grieve throughout quantitative analysis has often been the timely tonic against the inherent stresses of research. Thank you, Cedric.

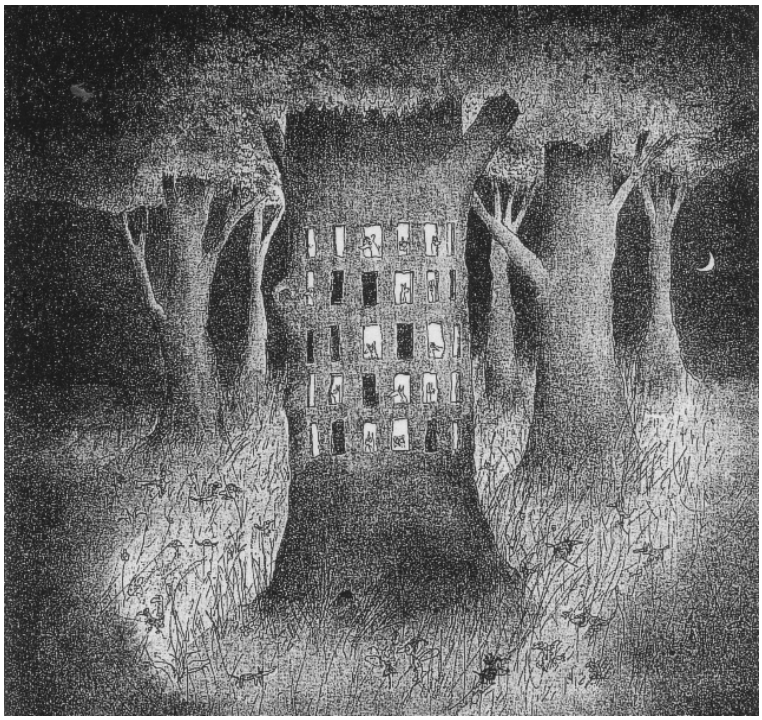
For the countless hours of hot-tub inspired thought and friendship, and for his gracious assistance in thesis drafting, I am in debt to Dr. Barry Hill. Thanks, Bazza.

I wish to thank the high school chaplains, students, teachers and principals from three schools who were willing and interested in my research endeavour.

Thanks go to Michelle Gibbs, Chantal Heise and Tamika Uprichard for help with 50 hours of data entry.

I find it no difficulty in offering thanks to The Cooranbong Bakery for the timely sustenance they have afforded me. Mmmmm.

Finally to my parents, Lyell and Gaylene Heise, who permitted me to camp in the study, eat food and use tank water for lengthy and generous periods – thanks and love to you both.



Dear God,

We celebrate spring's returning and the rejuvenation of the natural world. Let us be moved by this vast and gentle insistence that goodness shall return, that warmth and life shall succeed, and help us to understand our place within this miracle. Let us see that as a bird now builds its nest, bravely, with bits and pieces, so we must build human faith. It is our simple duty; it is the highest art; it is our natural and vital role within the miracle of spring: the creation of faith.

Amen

– Michael Leunig

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[1] Poem and Cartoon © 1996, Michael Leunig. Used by permission.

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Abstract

The development of spirituality and faith in students is one of the main goals of Christian education. The present study investigated this faith development and factors that contributed to it. Within the content of the study, faith was identified in two major themes. Vertical faith refers to relationship with God, belief in and commitment to Him and a willingness to foster this relationship. Horizontal faith refers to aspects of service and social justice, care and concern for others through compassionate interest in human relationships.

The study investigated the role that worship assembly played in faith development. In particular, the study investigated the impact of background factors, student participation in worship assembly and student attitudes to worship assembly, and their respective role in faith development.

Data were collected from 840 students in 3 schools in the Central Coast and Hunter Region of New South Wales during Term 2, 2001 using a questionnaire. Regression analysis was used to test hypothesised relationships in a causal model, linking background, intermediate and outcome variables.

Vertical faith maturity, that is students' relationship with God and commitment to Him, was found to be high, whereas horizontal faith maturity, that is care and concern through service to others was not as high but was still positive. Student attitudes towards worship assembly were positive. Students were found to exhibit very low rates of planning involvement and even lower rates of active participation in worship assembly. Participation, contrary to the import of the literature, had no major influence on vertical faith, and only a slight causal relationship with horizontal faith.

Causal pathways examined showed students who had positive attitudes to worship assembly were Christian and had both previous church and school worship experiences reported a mature vertical faith, ie a strong relationship with God, commitment to Him and willingness to foster relationship with God. Also, students with positive attitudes to worship assembly who were female, senior school students and were active participants in worship assembly reported a mature horizontal faith, ie they were strong in commitment to fellow human beings through service, social justice, and action on the human plane. Students involved in worship planning were most likely to be senior school students who are Christian, with previous church worship experience. Active leadership participants were most likely to be those who had previous church worship experience.

Chapter 1

Introduction to the Study

Introduction

For many Christian teachers choosing career orientation, seeing the students placed within their influence develop a mature Christian faith is a major motivating force. And yet, the roots of human behaviour are so complex that the educator cannot control many or even most of the forces at work in a student's faith building processes (Dudley, 1999). However, there are things Christian educators can do to assist in the process of faith formation in high school students. Worship assembly is one such faith-forming venue (Youlden, 1988) into which teachers, researchers and administrators alike can pour energy, time and resources as they seek to understand and aide the faith maturation of students under their care. Consequently, this study examined the faith maturity of high school students and the ways in which school-based worship assembly impacts upon student faith maturity.

This chapter describes the background to the study, an overview of the study purpose and objectives, the significance of the study and the structure of the thesis.

Background to the Study

Jesus Christ presented a challenge for those who believed in His mission to this earth: to share the good news of the salvation of Jesus Christ to all throughout the world. This calling to share faith has energised and motivated countless committed individuals into a commitment to enhancing, promoting and assisting in the faith development of other human beings. Christian education is a movement which responds to Jesus' challenge.

One of the main aims of Christian education is to foster faith-enhancing encounters with the person Jesus Christ through the formal religious educational programs of the Christian high school. The formal religious program in a Christian high school includes elements such as Bible classes, morning worships, peer support groups, small-group Bible study, community service and high school worship assembly.

In particular, the corporate spiritual events, such as worship assembly, are considered by Christian educators to be crucial to the development of faith in high school students. Why is this so? What unique role does worship assembly play in the development of faith? Are there elements of worship in high schools which are significant in influencing the faith development of high school students? What background factors influence the worship assembly context?

As a response to these and other questions, the present research endeavour is a direct attempt to examine the particular features of high school worship assembly which significantly influence the development of faith in students. Moreover, as the process of faith development is a life-long process (Fowler, 1981), the more we as Christian educators understand the complex matrices at work in faith maturation, the better we can aide both students and ourselves in taking personal ownership of our faith throughout life.

Purpose & Objectives of the Study

It was the purpose of this study to examine the high school worship assembly and to identify the way that it impacts upon student faith development. The two main objectives of this study were to examine 1) the influence of student participation in worship assembly on faith maturity, and 2) the influence of student attitudes towards worship assembly on faith maturity. In addition to these two main objectives, several research questions were posed (which are outlined at the end of Chapter 3).

The study aimed to achieve these objectives by exploring the multi-dimensional nature of faith and arriving at a definition of faith maturity. Also, the study reviewed past research into the area of faith development and the nature of worship, in order to define clearly the nature of worship participation and attitudes towards worship and

the ways in which they influence faith maturity. A theoretical framework was proposed by the distillation of research found in the literature into a causal model that hypothesised relationships between background, intermediate and outcome variables (see Chapter 3). Data was then applied to this model to test it quantitatively, discuss relationships, draw conclusions, define limitations and make recommendations for the future of Christian education.

Structure of the Thesis

The first chapter introduced the study by describing the background to the study and identified the key aspects of the study that are under consideration.

In the next chapter, literature relating to faith, the development of mature faith and the high school worship context is reviewed. In view of the scope of the research, the review seeks to be representative rather than exhaustive and forms the theoretical basis for the investigation. It also provides a foundation from which a causal model of relationships was proposed.

Chapter 3 elaborates the conceptual framework for the study by introducing the general model for analysis. Constructs within the model are defined, and the specific research questions to be investigated in the study are set out.

Chapter 4 provides the details of the research methodology. The chapter includes detailing the development of the questionnaire instrument.

A descriptive analysis of the variables measured in the questionnaire is included in Chapter 5. This includes a discussion of the factor scales used to measure construct variables. Chapter 6 applies these data to the causal model by description and discussion of the pathways in the causal model. Answers to the research questions are provided.

Further discussion of the results of the study is provided in Chapter 7 by synthesising an overview of the results with the findings of previous research in the area. Limitations of the study are discussed along with implications of the findings for

Christian education discussed. The study concludes with suggestions for further research.

Chapter 2

Literature Review

Introduction

For a research endeavor that seeks to examine the dimensions at work in high school student faith maturation, a discussion on faith is of critical importance. This is particularly so in a post-modern world where the characters of thought, reason, conviction, pattern and unity undergo significant fragmentary changes (Erickson, 1998). From the beginning of their lives, human beings are faced with the challenges of finding and composing order, unity and coherence in the force fields and mysteries of existence. When re-thinking the post-modern fragmentation of spiritual relativism (Wong, 2001), faith seems to not be so much a stranger to humanity. Faith is the most elemental force in the universe and is of ultimate concern to human beings.

All human beings experience faith (Livingstone, 1997). Faith is a mode of being, a way of knowing and a process of meaning-making (Fowler, 1986). Understanding how and why we come to make meaning out of life is of critical importance. We need to know more about faith. This is particularly so for the individuals charged with the task of educating adolescent meaning-makers – teachers (South Pacific Division of Seventh-day Adventists [SPD], 2000).

What is Faith?

As there are many perspectives on faith, it is paramount to understand exactly what we mean by the term faith. Parks (1986, xv) defines faith as "the activity of seeking and composing meaning in the most comprehensive dimensions of our experience". Faith is one's conviction of the ultimate character and meaning of existence (Gillespie, 1988) and may not necessarily be limited to religion. As faith is a grasp for meaning (Fowler, 1981) it is a human experience which transcends the bounds of religion into the sphere of everyman's existence (Parks, 1986). Smith (1977) suggests faith is an orientation of the total person, giving purpose and goal to one's hopes and

dreams, thoughts and actions. If this concern is not deity-centric, it does not mean the individual is un-faithful. It is possible for anybody to have faith.

Faith is "the appropriation of meaning from outside ourselves" (Dykstra, 1986a, 56). Faith involves interactions between the "human" and the "other" which involves "transcendence" (Fowler, 1981). It is this process of relating to the "transcendent" (Fowler, 1981) that assimilates and unites all of humanity. Because of this process, human experience has commonality. For decades, theorists have recognised all are on a quest of faith to align their will, and rest their hearts in accordance with a vision of transcendent value and power, one's ultimate concern (Smith, 1977). In particular, adolescents are engaged in processing and negotiating the factors of meaning within their lives (Dudley & Gillespie, 1992).

The universal nature of faith represented from Fowler's perspective (1981, 15) is a rejection of "relativism" (the philosophy or common sense view that religious claims and experience have no necessary validity beyond the bounds of the communities that hold them). Although Fowler (1986) does treat faith as a generic human phenomenon, as a way of leaning into meaning and as a way of life, he stresses the importance of the individual's experience, with lesser emphasis on the system that produces it..

Faith can be engendered by religious tradition. In some cases and to some degree, Religions in their organized doctrines and beliefs encourage faith. But faith is a quality of the person, not of the system. It is individual perception, not corporate imposition (Alston, 1991). Smith (1977) almost predicted Fowler's argument with the assertion

> Faith is an orientation of the personality, to oneself, to one's neighbour, to the universe; a total response; a way of seeing whatever one sees and of a handling whatever on handles; a capacity to live at more than a mundane level; to see, to feel, to act in terms of a transcendent dimension. (p. 12)

Faith therefore can be seen from a variety of perspectives. One such view is from the Christian perspective and we now turn to the Christian perspective to shed more light on the nature of faith.

Faith – a Christian Perspective

There is nothing in heaven or on earth that can be called *the* Christian faith (Livingstone, 1997). Rather, there is commonality amongst Christian denominations in certain areas (Plantinga, 2000). The commonality of Christian traditions of faith lies in the response to the transcendent itself – God (Smith, 1963, 173). Faith in the Christian context involves the response of beliefs, commitment and activity to Jesus Christ, the son of God. Here, the purposes, goals, hopes, thoughts and actions of individuals center on a response to the cross of Christ and his reconciliation of our lives towards God (Dykstra, 1986a; Cobb, 1975). The Christian faith is deity-centric. Christians think and act in terms of the transcendent dimension as seen in the life, death and resurrection of Jesus Christ, the son of God. These perceptions of God and experiential awareness of Him make an important contribution to the grounds of belief (Alston, 1991), the nature of commitment (Gillespie, 1988) and the response of action (Stokes, 1990) which Christians make within their faith experience.

A theo-centric, Christian perspective can be applied to an understanding of the construct faith (Cobb, 1975). Within this theistic framework, Dykstra (1986a, 55) suggested faith is "appropriate and intentional participation in the redemptive activity of God". This definition is distinctively Christian, in that it demands a response to the presence of redemption in an individual's life.

In a discussion on faith, Dysktra (1986a, 55-56) outlined three distinctive characteristics of faith. First, faith is correlated with God and belief in Him. The definition suggests faith is strongly dependent upon God and cannot be a reality without God. Further, Christian faith is a possibility in human existence, but not a necessity. Christian faith is a chosen endeavour.

Second, Dykstra recognizes the activity component to faith, similar to other commentaries (Cobb, 1975; Fowler, 1981; Gillespie, 1988), In Dykstra's context, however, the activity comes about as a response to who God is and what God is doing (Dykstra, 1986a). Hence, we may or may not engage in the faith process. But Christian faith is a commitment to respond to the redeeming work God has done through his son, Jesus Christ, on our behalf as a gift. Paul, a New Testament scholar ,

strongly asserts the response position with the following statement in Ephesians chapter two verse eight:

> For it is by grace you have been saved, through faith--and this not from yourselves, it is the gift of God.[1]

It is the response to this gift which is the task of faith in a Christian context.

Finally faith requires that individuals need to know who God is and what God is doing in order to be able to respond. Faith, then, requires knowledge and belief put into action (Gillespie, 1988). We need also to know how to respond. This involves learning the skills, habits, the ways of thinking, behaving and feeling that are involved in a way of living that is an appropriate response (Dykstra, 1986a).

These three characteristics give us an insight into the multi-dimensional nature of faith and dimensions will now be given further consideration.

Faith – a multi-dimensional construct

Faith is multi-dimensional in nature (Fowler, 1981; Gillespie, 1988; Livingstone, 1997; McGrath, 1999). This has caused colourful and varied scholarly discussion. Empirical educational research processes (Keeves 1988, Anderson & Arsenault, 1998; Betts, Hayward & Garnham, 2001) suggest an idea under investigation should be conceived as a muscular, structured, theoretical premise. A person's faith is enormously complex with a host of dimensions, running the gamut from traditional theology (Smith, 1977) to contemporary spirituality (McGrath, 1999). Faith, while a conception, is at the same time also a feeling, an experience, an attitude and a life orientation (Gillespie, 1988; Fowler, 1981). Faith's texture is multi-woven, multi-coloured, and multi-varied (Gillespie, 1988). Consequently, faith is a complex phenomenon to operationalise for empirical investigation (Zimbauer & Pargament et al, 1997). Its many dimensions make faith difficult for a single theory or perspective to address.

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[1] All Biblical references are taken from McGrath, A. E. (ed) (1996). *The New International Version Thematic Study Bible*. London: Hodder and Stoughton.

As a consequence, the discussion in the scholarly community on faith has avoided reaching a universal definition regarding the concept, and has tended to explore faith's various dimensions. Two such dimensions were suggested by Fowler (1981) when he suggested that faith is 1) relational and, 2) a way of knowing.

Faith as Relationship

Fowler (1981) identified the triadic nature of faith as *relationship* between 1) self, 2) others and 3) a shared center of value and power. Triadic faith (Fowler, 1981, 18) is a highly formalized dialogue about deeply personal relationships in which we invest and devote ourselves because the other to which we commit has, for us, an intrinsic excellence or worth and because it promises to confer value on us. Fowler suggests that it is our interaction with the shared centre of value and power and other individuals around us that causes us to have faith. It is the making-sense of these interactions which operationalises faith and gives birth to meaning (Fowler, 1981).

Gillespie (1988) also describes faith in terms of relationship. The young child first recognizes what it is like to know a loving God through the attitudes and relationships of the caring parents. So in the context of its relationship dimension, faith is a way of *relating* to the transcendent as well as to others.

Faith as a Way of Knowing

For Fowler (1986) faith is also a way of *knowing*. This kind of knowing is a combination of both cognition (Piaget, Kohlberg) and affective knowing that includes the emotions, passions and a subjectivity dimension. Faith-knowing (Fowler, 1986, 23) gives rise to choice and action in which the constitution or modification of the self is always an issue. In faith-knowing, meaning-making as a constructive movement is prior to and generative of both reason and emotion, of cognition and affective knowing. In this sense, the Piagetian divide between cognition (objectivity) and affective (subjectivity) knowing is, in principle, overcome (Kegan, 1982). Wakefield (1983) agrees that faith, then, is a complete and all-life-inclusive apprehension of super-sensible realities. Fowler's (1981) powerful theoretical and developmental

discussion on faith is an interrelationship of the cognitive (knowing) and affective (relating) dimensions of faith.

Faith is both a relationship and a way of knowing, bound within a process of life-orientation towards meaning (Fowler, 1981). Related to a way of knowing is the belief dimension of faith.

Faith as Belief

Belief is the content of faith – it embodies the proposition and concepts around which individuals organize their system of understanding (Fowler, 1981). Smith (1977) articulates the distinction between belief and faith – belief centers on tradition, the denomination, the religion, the intellectualizing of thoughts and intelligence into a body of knowledge, whereas faith embodies the overall life orientation of the individual. Belief is the holding of certain ideas, arising out of the effort to translate experience of and relation to transcendence into concepts or propositions (Fowler, 1981, 11). Belief is one way faith expresses itself as propositions or concepts. Preceding belief, faith is the relation of trust in and loyalty to the transcendent about which concepts or propositions – beliefs – are fashioned (Fowler, 1981). Beliefs center more on the tradition, the denomination, the religion whereas faith precedes and transcend the tradition, and in turn sustains it.

The belief dimension of faith has been under discussion for some time in the scholarly community. It has traditionally included such propositions as (Cundy, 1953):

- God is eternally self-existent
- God is personal
- God is sovereign
- God is holy
- God is love, and
- God speaks by revelation,

  all of which are revealed most fully through Jesus Christ. (p. 30)

More recently, Plantinga (2000) gives an excellent working summary of Christian belief in his discussion *Warranted Christian Belief*. Summarizing his stance, Plantinga (2000, vii) suggests Christian belief begins initially with the belief that there is an all-powerful God. God is a person – that is, He is a being of intellect and will. God has knowledge, power and love, for example, to the maximum degree. God is

thus all-knowing and all-powerful. He is also perfectly good and wholly loving. Still further, God has created the universe and constantly upholds and providentially guides it (Plantinga, 2000).

Belief often tells a story (Parks, 1986; Fowler, 1981). At the heart of Christian faith also is a story (Webber, 1999). And at the heart of Christian education must be this same story also (Westerhoff III, 1987). Unless the story is known, understood, owned, and lived, we and our children will not have Christian faith. In the life, death, and resurrection of Jesus Christ, God provides us with the basis for understanding, interpreting, and applying our faith story (Westerhoff III, 1976, 1987). He is the belief centerpiece of Christian faith and worship (Webber, 1999, 102).

Faith as Commitment

The Christian faith involves not only belief *in*, but also response *to* these truths about which faith is embellished and life-orientations, commitments and convictions organized. A response of commitment, action and service is required to authenticate and deepen the beliefs and faith experiences of individuals (Roy, 2001).

Parks (1986, 50) also strongly argues for the "convictional commitment" associated with faith. She suggests that the alignment of an individual's whole being with and around their centre of superordinate power and value (Fowler, 1981), or in the Christian theistic context – their God – reinforces the value they place upon those beliefs. The interaction of belief and commitment brings about a marriage of the prepositional concept and the affective behaviour and orientation of the life.

Commitment involves a risk (Parks, 1986). The possibilities for curiosity, awe, fascination, delight, satisfaction, exuberance and joy exist in an encounter with and commitment to God. Equally a degree of challenge, threat, bewilderment, confusion, frustration, fear, loss, emptiness or other suffering can be an outcome of the "faithing" experience (Fowler, 1981). Traditionally, the late teens and early twenties is a time for questioning one's religious traditions and beliefs (Stokes, 1990, 31). During adolescence, the experience of faithing can involve sensations and experiences requiring decisions to be made as to what is valuable, worthy and adequate (Parks,

1986). Adolescent faith (Westerhoff III, 1987) is particularly involved with the processes of a struggle to affiliate, or a crisis of commitment as young people attempt to align their world view with their commitment and conviction.

Historically, Christian scholars have suggested faith involves vision and commitment. One commits oneself to that which is known or acknowledged and lives loyally, with life and character being shaped by that commitment (Tillich, 1957). Smith's major contention (1963) is that the process of defining meaning in ones life – theistic faith – begins and ends with God. The end of faith[2], its purpose and goal, that to which it points and may lead, is God (Smith, 1963, 181). Additionally, God is the end of faith in the sense that once He appears vividly before us, in His depth and love and unrelenting truth, all else dissolves. The religious paraphernalia and scaffolding drops back into its due and mundane place, and the concept "religion" and indeed "faith" is brought to an end. In the present absence of this desirable outcome, faith involves hope and commitment.

More recently, Plantinga (2000) extended faith's meaning beyond belief to the clinging to, aligning with and responding to God's saving act in the sacrificial suffering, death and resurrection of Jesus Christ. Thankfulness at heart is a feature of the commitment dimension of faith. Further, it seems commitment can be best described as a "setting of the heart upon" (Parks, 1986, 11). Belief in God and aligning one's will and being with God are inter-connected, such treatment of which should not be shied away from. As a consequence of these beliefs and commitments, individuals with faith respond with action.

In his study of twenty day Academies in the United States, Youlden (1988) posited that Christian faith is a chosen process of action, a lived experience played out and moulded by Christian belief. This belief in turn leads to commitment. Youlden (1988) concluded that spiritual people are those who recognize the all-pervading presence of God, who seek to have a personal relationship with Jesus, who commit

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[2] Smith, W. C. (1963) *The meaning and end of religion*. New York: Macmillan. Smith uses the generic term "religion". The researcher has taken the liberty to substitute the word "faith" due to Smith's meaning-making emphasis in his "religion" discussion.

themselves to Christian discipleship according to scripture, and whose lives and service for others demonstrate the leading of the Holy Spirit.

Faith as Action

Benson, Donahue & Erickson (1993) assert that there is a theme of interaction, care and service as people interact with the faith structures and beliefs of a range of protestant denominations (see Benson et al, 1993 for an accurate description of these interactions). Service for others, care for the environment, interaction with the real themes of social justice and human rights occupy a focus in an individual's life – in these cases, faith is in operation on the horizontal plane of action.

Sharon Parks (1986, 21) advocates "faith determines action; faith is manifest in act". Here, faith is both a pre-requisite for action of service, yet also is manifest in those actions for other people. In that faith precedes action, Parks further suggests our acts, powered by the deeper convictions and affirmations about God (our faith as commitments and beliefs), will become evident as the primal force of promise in our lives, as our everyday activity of meaning-making that is both ultimate (with God) and intimate (with others) (Parks, 1986).

Stokes (1990) uses the word "faith" as a verb, in the sense that it denotes a dynamic process. Faith, or "faithing" (Stokes, 1990), is the antithesis to static experience and ultimate knowledge – it is a lifelong journey that is never ending. Faith is a word of action (Stokes, 1990) which denotes ongoing movement, activity, direction and purpose.

Westerhoff III (1987) also uses the word faith in the context of action, of verb. For him, faith is a way of behaving which involves "knowing [belief], willing [commitment] and being [action]" (parenthesis added, Westerhoff III, 1987, 89). Faith results from and expresses itself daily in all we do in our actions with others. The action dimension of faith stresses the action *with* and *for* other people. Faith involves a service for mankind in which mankind is put before individual needs (Whittington, 1990). Through this sharing with one another, we each sustain, transmit and expand our faith (Westerhoff III, 1987). Faith becomes more than a belief system

to which we have committed our being and "set our hearts upon" (Parks, 1986) – faith becomes an activity of interaction, compassion and care for the other (Roy, 2001).

John, a New Testament Christian scholar, strongly asserted the connections between belief, commitment and action when he states "Whoever claims to live in Him must walk as Jesus did." (1 John 2:6, NIV). The beliefs and commitment of individuals in the Christian faith should engender an active response in the form of service and compassion for others. Jesus asserts this idea in Luke10:27 with his summary of the Old Testament law:

> Love the Lord your God with all your heart and with all your soul and with all your strength and with all your mind [belief and commitment] and, love your neighbor as yourself [action][3].

In the context of the Christian faith, the action of service to fellow mankind dimension is clearly an outflow of a dynamic belief in and commitment to God.

In summary, because faith is embodied in action (Parks, 1986; Westerhoff III, 1987; Stokes, 1990; Benson et al, 1993), those people who are faithing reveal the power of their beliefs, story and vision (Fowler, 1981; Parks, 1986; Smith, 1963, 1977; Westerhoff III, 1987) in the forms of their common everyday life and interactions both with God and with other human beings (Benson et al,1993; Gillespie, 1988; Whittington, 1990).

Synthesizing the dimensions

From the previous discussion it can be seen that faith has many dimensions. In particular,the dimensions of faith as: relationship, a way of knowing, belief, commitment and action were discussed. These dimensions, although informative and perceptive, should not be seen as *the* exclusive, precise dimensions of faith. Faith has many more dimensions than the scope of this thesis allows for discussion. To provide a more parsimonius theoretical framework, the dimensions of faith can further be grouped into a two dimensional construct: a vertical theme and a horizontal theme.

[3] The researcher's brackets have been added.

In a study involving 11,000 adolescents and adults, Benson et al (1993) utilized three advisory panels made up of denominational executives, seminary scholars and researchers in the field of religion and denominational studies from six different denominations. The panels met together to define and develop scales to measure the concepts of faith consistent with the theology found in most Christian protestant denominations. For Benson et al. (1993, 3), faith maturity is the degree to which a person embodies the priorities, commitments and perspectives characteristic of vibrant and life-transforming faith, as these have been understood in "mainline" Protestant Christian traditions.

The focus for the measurement of faith became the *indicators* of faith rather than on faith itself. The key task involved describing the signs, in behaviour, posture, and attitude that faith – real, dynamic, life-affirming faith (Benson et al, 1993) – was at work in the individual. The study results discerned two core thematic dimensions of faith: vertical faith and horizontal faith (Benson et al, 1993).

Jesus Christ embodied both dimensions of faith with more profound consistency than any other human being ever has or will (Sager, 1990). In Him was complete belief and centred value on God (vertical theme of faith), then complete commitment to Him and to enacting love and justice to those around Him (horizontal theme of faith). These two major themes also reflect the previously outlined dimensions of faith as relationship, a way of knowing, belief, commitment and action. Each of these can be enmeshed with this two dimensional framework of faith in two major themes as seen in Figure 2.1.

Vertical Theme

The first core faith theme is one's personal relationship to God, labelled a *vertical theme*. This theme might be called agentic, "love-of-God" faith. It involves a self and God encounter, including one's personal relationship to God, one's efforts to seek God and the personal transformation of experiences in this divine encounter (Benson et al, 1993). The previously discussed faith dimensions – faith as belief, faith as relationship to God and faith as commitment to the beliefs and relationships with God – are synthesized as the "vertical" theme in faith (see Figure 2.1). Faith is one's

"vertical" relation to a higher transcendent theistic God through belief, knowing, relationship and commitment.

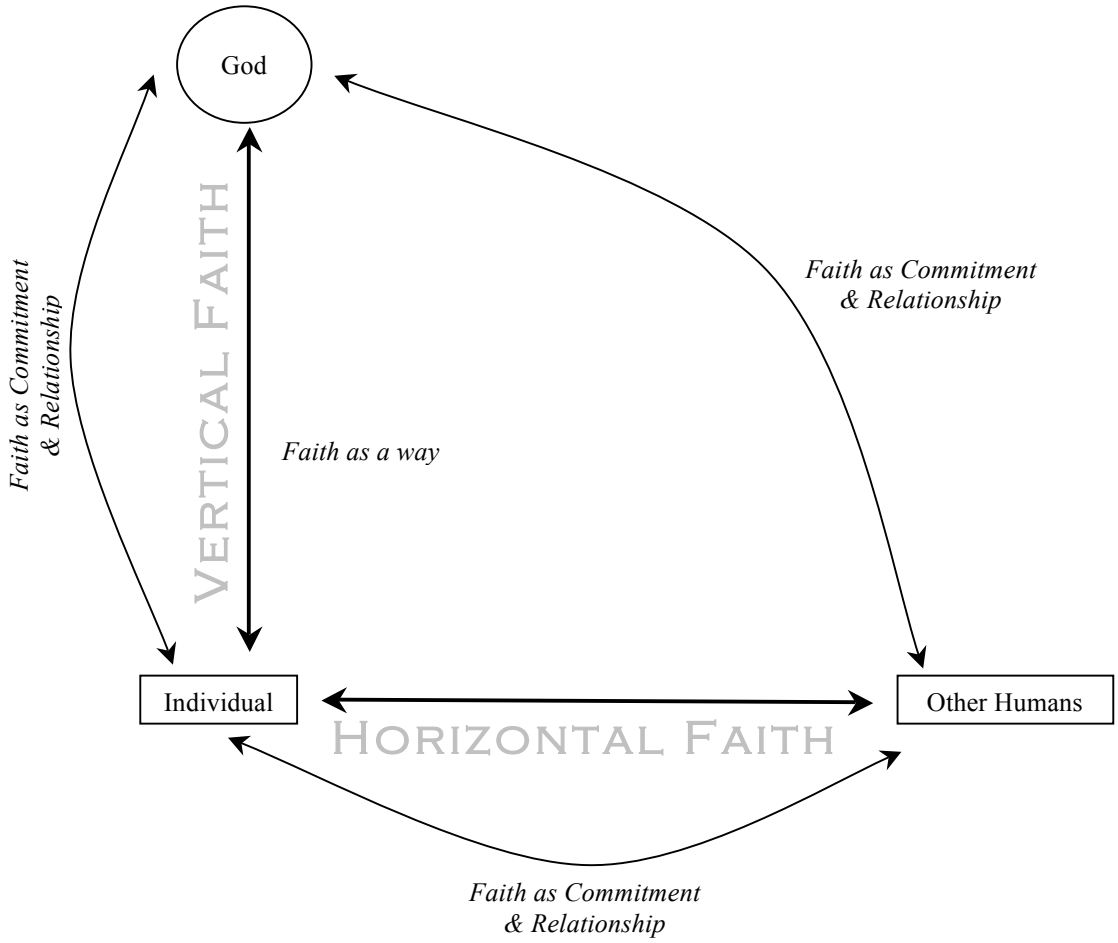


Figure 2.1 Faith in Two Major Themes: Vertical and Horizontal.

Horizontal Theme

The second core faith theme involves obligation and action on the human plane. It involves heeding the faith-calling to social justice, social responsibility and service. While many other faith traditions embrace this theme it is particularly salient in mainline protestant Christianity (Benson et al, 1993). This theme could be called horizontal, communal, or "love-of-neighbour" faith (Benson et al, 1993, 4). The previously discussed faith dimensions – faith as a relationship with other individuals, faith as commitment, and faith as action – are synthesized as the horizontal theme in faith (see Figure 2.1). Within the horizontal theme, faith is an individual's

compassion, interest, social justice seeking activity in "horizontal" relation to other human beings. This occurs through relationship, commitment, and action on the horizontal plane as a response to relationship with God on the vertical plane.

It is noteworthy that faith as *relationship* and *commitment* exists in both the vertical and horizontal dimensions. Commitment to the beliefs about, and ways of knowing, God involves a responsive action on both the vertical and horizontal plane. Faith is just as much a set of personal relationships and commitments with other human beings as it is a unique relationship with a theistic God.

Faith: A Summary

To assert that the Christian faith dimensions of relationship, a way of knowing, belief, commitment and action couched within a two-dimensional framework are ultimate and complete is an exercise in naiveté. Realistically, much overlap exists between the five dimensions and other dimensions not outlined here as they interrelate and mold each other in the faithing processes of individuals.

The two faith themes, although a simplification of complex faith dimensions, does allow faith to be wielded as a measurable, comparable construct based on faith and faith development theory. Rather than leave faith as an amorphous concept in a vacuous, relativistic, complex sea (Fowler, 1981; and Fernhout, 1986), this conceptualization allows for further and in-depth analysis in the world of faith development. Further, various strength and weakness can be observed between individuals as they experience greater or lesser degree of interaction with God and their fellow mankind.

In the present study, then, faith maturity will be defined and measured as a student's perceived position relating to two essential themes of faith experience: vertical and horizontal faith.

The next section of this literature review will address the body of knowledge relating to the development of faith in high school students, and the relative contribution that various factors play in developing student faith.

Faith Development

Understanding how children and students develop faith is important. As Christian teachers and researchers, the better we understand the dynamic processes of faith formation in high school students, the better we can choose strategies that most likely aid the process (Dudley, 1999, 7). Although it is a complex and ambitious task (Raad, 1999), faith development research choses as its focus to discover the complex matrices that interrelate to produce the faith of human beings. The following section reviews research findings concerning the faith development of high school students.

Factors that contribute to Faith Development

Concern with declining enrolment and commitment in Seventh-day Adventist schools and churches in the United States and Canada led to one of the largest empirical studies ever undertaken by a church group (Dudley & Gillespie, 1992). "Project Affirmation", the steering committee behind the research, released the study in a report titled *Valuegenesis: Faith in the Balance* (Dudley & Gillespie, 1992). Valuegenesis was a study which proposed to directly examine the relationships that exist between faith maturity and the three institutions responsible for educating Christian youth: home, school, church.

The findings revealed that 43% of all Adventist youth had an undeveloped faith, that is, they scored low on both vertical and horizontal faith maturity scales (Dudley & Gillespie, 1992, 66). However, the study revealed that for high school students mature faith was best predicted by perceptions of a thinking climate in the local congregation, frequency of talking with friends about God, quality of family worship, frequency of family projects to help others, extent to which the family upholds Adventists standards, and the quality of the school religious program (Dudley & Gillespie, 1992, 72). It seems mature faith is fostered by quality of religious programs in both home and school, working together with family and friends through both serious and open religious discussion within those groups. In accordance with these findings, the larger body of research into the development of faith in high school students identifies consistently the following three dynamics as being significant in

the strengthening of faith: home, church and school environments. They will be discussed in turn.

Home Environment and Faith Development

The importance of families in the development of student faith has long been a feature of faith development research. It seems that the home environment is a crucial venue in which the faith of high school students is developed. Adolescents adopt the belief structures and value systems in which they grow and experience life, particularly as a result of the parenting behaviours and home environments in which they experience life (McClintock, 1989). Parenting behaviours in which spiritual leadership is shown, and in which family relationships are held in high esteem are directly related with a child's positive perspective on God (Sonter, 1989). Further, the quality of family relationships has been found to be more important than the religious behaviours and belief structures of parents (Strahan, 1994).

Adolescent correlation with parental beliefs and value attitudes is a direct result of the development of faith in the influential home environment (Dudley & Dudley, 1986). Also, the family climate plays a significant role in adolescent faith growth. In particular, where both father and mother demonstrate high religiosity, are comfortable talking about faith and discuss this faith with their children, students are more likely to reveal faith maturity (Dudley & Gillespie, 1992). Family worship has also been found to promote faith in adolescents (Lee, Rice & Gillespie, 1997). Even students themselves seem to highlight the influence of family and family worship on their own faith development as being significant influences (Hughes, 1993; Gane, 1997).

The influence of the home in developing student faith has been affirmed in the findings of other studies (Benson and Eklin, 1990; Gane, 1997; Hughes, 1993; Roehlkepartain, 1990b; Sonter, 1983, 1989) all of which seem to agree in asserting "Family plays the pivotal role in faith development" (McClintock, 1995, 57).

The clear import of this synthesis of findings is that family of origin seems to have had the most major impact upon the faith development of high school students. This finding cannot be underestimated.

Another venue for student faith development is the place of church worship in which students experience faith.

Church Environment and Faith Development

The environment of church worship and the life of a church community have a bearing on the Christian faith that is developed in students. Particular congregational factors have been shown to have a bearing on the faith that is developed in students. These include teacher and pastor faith maturity, care for adolescents, commitment to youth programs and dedication to the young people in the church, all of which aid in the active development of faith in high school students (Benson, 1992).

Further, research suggests congregations which promote faith and loyalty in adolescents are those that feel warm, friendly and welcoming, encourage members to think during worship, discuss and debate issues and argue about the content of faith, including values, theology, politics and scripture (Dudley & Gillespie, 1992). Effective faith-support from congregations in churches involves helping students experience the care of other members by incarnating God's love directly, personally and dramatically (Benson, 1992). By engaging with the young people of the congregation, faith is transmitted in a positive manner (McClintock, 1995). Research has discovered, however a lack of church worship participation in high school-aged students (Dudley & Gillespie, 1992). Benson (1992) also reported a lack of participation, with only about one-third of year 10 to 12 graders reporting a minimal involvement in church worship events.

Further, religious beliefs, particularly those formulated during church worship, are a critical influence in the church involvement level of young adults. Also, a young person's own involvement in church as a youth and their parent's church attendance had an impact on their present-day church involvement levels (Hoge, Johnson & Luidens, 1993). It seems that participation and involvement in worship in the church context has a bearing on the faith experience if individuals, even into their young and middle adulthood. The conclusions reached in a study by Maynard, Gorsuch & Bjorck (2001) mentioned strong relationships between concept of God and the

importance individuals place on their religious and spiritual lives and their level of participation in religious activities. These examples offer further support to the notion that the church environment, particularly participation and involvement, has considerable bearing on the faith maturity of high school students.

It seems clear then that the church environment is one venue in which students gain a picture of faith and tools with which to experience it (Roy, 2001). Together with the family and the church environments, the school is also a significant venue in which young people develop their faith.

School Influences on Faith Development

The school is seen as a venue in which faith may be developed continually through extensive Christian nurture and growth programming (Rice & Gillespie, 1992). However, one study into faith development discovered a decline in faith and commitment between the 7th and 12th grades (Dudley & Gillespie, 1992). Despite this decline, the study pinpointed factors that are effective in schools which promote faith in students. Rice & Gillespie (1992) concluded the most powerful school factor promoting mature faith in high school students was the quality of the school religious education programming, including Bible classes, morning Worships, school worship assemblies and school weeks of prayer. Other factors significantly correlated with high faith maturity included: the willingness of teachers to talk about God and faith, caring, supportive, competent teachers, and high school spirit. Quality religious education utilizing loving and caring role-models seems to enhance faith maturity (Roy, 2001).

Benson (1992) discovered nine school effectiveness factors were found to promote faith maturity and / or denominational loyalty in high school students. The nine aspects according to Benson (1992) are:

- Quality of formal religious education programming
- Frequency with which teachers and students talk with each other about faith and religious issues
- The degree to which teachers are experienced as caring
- The degree to which teachers are perceived as competent
- The degree of school spirit
- The degree to which discipline is perceived as fair
- The degree to which students have a voice in school policy
- The degree to which teachers encourage, reward and support students

- The degree to which the school enforces standards important to the Adventist way of life. (pgs. 18-19)

It seems a dominant theme emerging in faith development research is the issue of school climate, one that is warm and supportive with caring adults, caring peers and caring teachers in an open community (Benson, 1992; Dudley & Gillespie, 1992; Rice & Gillespie, 1992).

Several studies pointed to the impact of the structured activities offered in schools. Particular features of the high school either directly contribute to or are designed to attempt to enhance faith development in students. One such venue is the high school worship assembly. Research supports the influence of high school worship assembly in the bolstering of faith in high school students. Youlden (1988), in his study of senior students across 19 American day academies of the Seventh-day Adventist church, found that students perceived school worship assemblies and weeks of prayer (daily worship assembly for an entire week) to have the greatest influence on their spirituality in the school context. He noted especially that "Christ-centred weeks of prayer" (Youlden, 1988, 171) were key factors in contributing to spirituality and faith development in the Adventist High school context.

Dudley & Gillespie (1992) also found a significant relationship between high school assembly programming and faith maturity. The results of this study indicated the quality of the religious programming, time spent involved in and participating in programming and running of the worship events, and positive attitudes towards Adventist schools are related to a growing faith within high school students. Forty-eight percent of the youth said weekly worship assembly at school helps their spiritual life (Dudley & Gillespie, 1992). Students further suggested that active participation and involvement was of great assistance in understanding the meaning of faith in practical terms. Grieser (2000) theorised the significance of student attitudes towards worship assembly services, highlighting the influence of the worship assembly long into the future of student's faith experiences.

It seems that in the high school context, quality of religious programming, involvement in the weekly worship assembly and quality of student-teacher

interactions all are important in the complex matrix of interactions that produces faith in high school students. Worship assembly particularly is a venue in which these interactions all take place. What then is the significance of worship assembly to the development of faith in high school students?

High School Worship Assembly

Central to the goal of Christian education is an encounter with Jesus Christ (Roy, 2001; SPD, 2000). In schools, worship assembly is essentially a significant period of time and space that has been set apart for the corporate expression of worship to God. Corporate worship events have been integral to Christian educational curriculum for as long as Christian education has existed (Livingstone, 1997). Worship assembly provides a unique venue for facets of group dynamics and faith learning that cannot be achieved in the same way in any other than a corporate context. The paramount importance of worship has been particularly recognised by administrators of the Seventh-day Adventist Christian Education System in Australia as a focal point for Christian education. Even the first essential goal of this system (SPD, 2000) is to

> 1. promote holistic student development expressed in academic excellence, *Christ-centred worship*, loving relationships, physical activity and practical concern for others. (pg. 270)[4]

It would seem that worship assembly is important from a planning, administrative and theoretical perspective. What, then, is worship assembly's presence and influence in the bump and grind of the making and producing of faith in the lives of high school students? What do students think? How do students react to worship assembly? Does worship assembly play a role in the faith development of high school students?

In order to begin to address these questions, and before commencing to examine aspects of worship assembly which possibly strengthen student faith, one needs to consider the nature of worship.

[4] Italics have been added.

What is Worship?

Worship is the expression of one's faith (Webber, 1992). In the temple of the Old Testament Biblical times, through active participation in temple services, Israel learnt about the nature of God and their relation to Him (Webber, 1993, 1994). Participative worship was a faith strengthening activity. Biblical prophecy suggests that near the close of time, worship will become a poignant feature of the true followers of God. They will be those who "worship Him who made the heavens, the earth, the sea and the springs of water." (Revelation 14:7, NIV). Throughout time, humans in relationship with God have evidenced their faith through active participation in worship, a faith-building activity (Webber, 1999).

Worship has been defined in many ways. Fischer (1986, 6) defined worship as "a communication event with God, wherein God is honoured for who he is". This definition stressed the communicative nature of worship, involving the sending and receiving of messages, focussed upon the content and person of God. Fischer repeatedly asserted worship is active – "it is an act of man springing from an appropriate recognition of the character of God" (Fischer, 1986, 12). Other scholars have echoed Fischer's assertion by stressing worship is communicative (Allen And Borrer, 1982), not merely a mood but a response (Webber, 1992) and distinctly active (Cornwall, 1983). Cornwall (1983) recommends

> Worship is occupied with God's personage, is concerned with who God is, and worship is what we do once we gain entrance to that presence. (pg. 143)

Tietjen (1972) placed a historical emphasis on the term worship, aligning it with the activities of God in the past, present and future: "We worship because worship makes present God's past saving action in Christ" (Tietjen, 1972, 148). From this definition, worship has a pedagogical and learning function. Worship serves to develop the faith, spiritual realities and eternal truths of the past within learners in the present. This is an active process of participation and learning.

Corporate worship is a *doing* word (Whaley, 2001). Webber (1992) also stressed the action element in worship when he titled his book *Worship is a Verb*. Worship is an active engagement with the stories of Christianity and God's influence in our lives

that have come to shape our past, present and future. The relationship, then, between worship and faith would seem to be of a close association. Both "faith" and "worship" have been described as words of action and doing (Stokes, 1990; Webber, 1992). Whaley (2001) theorises when *doing* the act of worship, one's faith is strengthened – conversely, when one's faith develops the natural active doing response is worship.

If action and involvement are significant in worship in general, by extension, one would assume that worship in the high school context also has the significant need for action and involvement of a participatory nature.

Worship as a Venue for Faith Development

In the high school context, Westerhoff III (1987) delivers a warning relating to worship and learning –

> As Christian educators, we have tended to emphasise cognition and thinking. We have, it seems, turned faith into a way of knowing and nothing else. (pg. 73)

It is difficult to overestimate the importance of experience, participation and active involvement in the shaping of young lives. Worship assembly in the high school is a venue into which the critical injection of corporate activity, involvement, participation and inclusion could have a significant effect upon the development of faith in our students.

Worship is a critical experiential feature of faith growth (Webber, 1992) which helps protect against pure conceptual and thinking regimes. Worship helps shape the lives of students (Dudley & Gillespie, 1992). Westerhoff III (1987, 15) suggests the powerful influence of worship in relation to faith formation with "Worship remains a key to formation. Ritual shapes our lives …". Further, Westerhoff III asserts the way to foster Christ-centred worship and faith is through intentional, relational experiences within a community of Christian faith. Sager (1990, 89) agrees and suggests "worship can transform us". Much support is lended to the notion that worship influences the development of faith in high school students.

McClintock in his research on *trans-generational faith transmission* identified key factors, stressing the need to "encourage a warm and supportive environment where one is encouraged to think and be involved" (McClintock, 1995, 58). Action and involvement of students in both the planning and production of high school assembly worship remains a key ingredient to successful learning in the Christian context and to the development of faith (Dudley & Gillespie, 1992).

Weekly worship assembly has been identified by students as being the most important in-school factor leading to the development of their personal faith (Gane, 1997; Youlden, 1988). For Gane (1997), forty-four percent of respondents were in agreement that the weekly chapel impacts greatly on their faith development.

In summary, the high school worship context should be an environment in which encouragement, warmth and active involvement and participation are factors which promote and nurture Christ-centred worship, thus the development of faith (Long, 2001). As Christian educators, we need to be aware of the needs of students for action and involvement (Fowlkes, 1992). Students want to be accepted, challenged and involved in a meaningful way in their school activities and ministry opportunities (Chavez, 1994). This means a need for greater participation in corporate worship events, such as the high school worship assembly. It also calls for the development of positive attitudes by maintaining the interest and relevance of worship assembly to students. Participation in worship and attitudes towards worship are aspects of worship which may have a bearing on faith development in high school students. These will be considered in turn.

Participation in Worship

An important and under examined theme emerging from faith development studies has been the stressed importance of increased involvement and participation in worship activities in the maintaining the of spiritual interest and relevance to adolescents (Dudley & Gillespie, 1992; Strahan, 1994; Hughes, 1993; Gillespie, 1988). The need for involvement and participation in the faith-building activities of the home, school and church was supported in many faith development studies reviewed (Dudley & Gillespie, 1992; Strahan, 1994; Hughes, 1993; Gillespie, 1988).

McClintock, in his dissertation centreing on faith transmission, emphasises that adolescents need to be involved, encouraged, challenged and affirmed even if they happen to think or behave differently from what an adult would choose (McClintock, 1995, 64).

Gane (1997) considered worship and religious programming to be a significant feature of the youth ministry activities and faith development of young people. His research suggested where youth ministry programs exist (defined as Pathfinders, Conference Youth Rallies, Local Church Ministry and youth camps) in the lives of adolescents, a positive impact is made upon faith development (Gane, 1997, 107). Where students actively participate in these activities, the possibility for faith growth is increased.

McGrath (1999) observed the external observance of faith naturally leads to the inward appropriation of that faith. Commitment is usually heightened by participation and involvement. Through participation in school worship assembly, the event becomes owned by the students, rather than being owned by the church or the school (Dudley & Gillespie, 1992). Parks (1986) concurred that the lively and sobering encounter with the fullness of God that confounds the soul, enlivens curiosity and expands student horizons can take place in the high school worship assembly. Such an encounter is most powerfully achieved when the student is not a detached observer but a responsible participant (Parks, 1986).

In summary, the literature suggests participation in worship of all kinds, including the worship assembly in a high school, leads to a strengthening of faith in the life of a student. Further, writers have stressed the risk of not involving students could result in the loss of teenagers from any kind of belief or faith (Miller, 1999). Unfortunately, no study examined the particular kinds of worship participation that brought a bearing on the personal faith of students. The literature did, however, point in a general way to the relationships between participation and faith.

Attitudes to Worship

Attitudes towards worship are important. Students who are actively involved in youth ministry have been found to show more positive attitudes towards youth ministry and also to evidence higher Christian commitment and more positive views of God (Gane, 1997). One must wonder whether or not positive attitudes are a cause or result of the life of a strong faith. Which comes first – positive attitudes or strong faith? It seems from this dichotomy a common assumption in Christian education circles that positive attitudes towards worship go hand in hand with a strong positive faith experience in the life of a student. Further investigation of this relationship in the high school context would aid in the testing of the assumption that positive attitudes towards worship assembly have an impact upon a strong degree of faith in high school students.

Attitudes toward the local congregation are of vital importance in determining what happens to the religious experience of a person a few years down the road. What one thinks now impacts what one will think then (Dudley & Gillespie, 1992, 168). By extension, attitudes towards the high school worship assembly could be of vital importance in determining what happens to religious experience and even faith development.

Attitudes towards Christian worship have been shown to affect the faith experiences of those in attendance. Fischer (1986) discovered congregational members with positive attitudes towards the worship event were those who expressed the most satisfaction in their relationship with God. Individuals also exhibited a greater feeling of presence and energy in signing and interest in the sermon during the worship event than other participants in the study. Attitudes, it would seem, are important in relation to the faith experiences of students.

Research has recommended teachers, school administrators and school chaplains need to adopt strategies which ensure that classroom worships and worship assemblies address the spiritual needs and attitudes of students (Youlden, 1988). In the facilitation of both participation in and positive attitudes to worship, the teachers and

high school staff responsible for the spiritual nurture of students can support the growth of faith in the context of worship assembly.

Summary

In this review of previous literature, faith has been found to exist in two major themes – a vertical theme involving relationship with God, and a horizontal theme involving the expression of faith in service of compassion to mankind.

Faith has been found to be developed in high school students by three significant institutions: the family, church and school. Within the school context, studies have shown the high school worship assembly to be a significant venue for the development of faith in high school students (Dudley & Gillespie, 1992; Gane, 1997; Youlden, 1988). In particular, participation in the life of worship was found to be significantly related to high school worship assembly, although the particular nature of participation and its frequency was unidentified in the literature reviewed. Attitudes towards worship are also influential in the processes of meaning-making and faith development of students.

Chapter 3

Towards a Causal Model

Introduction

From the literature reviewed, it would seem that faith development is a complex activity. Firstly, faith is multi-dimensional in nature, and secondly, there are many factors that may influence faith development and consequently faith maturity.

Various studies of faith development which have attempted to establish links between faith maturity and school, home and church dynamics (Dudley & Gillespie, 1992; Gane, 1997; Hughes, 1993; Strahan, 1994 et al.) have largely neglected the particular context of high school worship assembly in forming the faith of students. The high school worship assembly is a unique educational niche for the furthering of faith learning through knowledge and experiences. Such learning does not occur accidentally, but as a result of planned communicative interactions within a worship context. High school worship assembly is in itself a dynamic system with which students interact, and a wide range of factors may influence this system.

The aim of the present chapter is to develop a general model of relationships between some of the factors that may influence faith development in students. The development of specific aspects of this model will allow the identification of research questions and a specific line of enquiry into levels of student faith maturity and the role of worship assembly in faith development.

Causal Model

Since the early 1970s there has been increasing and advantageous use of causal models in the field of educational research (Beamish, 1998; Keeves, 1988). A causal model seeks to present hypothesized relationships between variables of interest and it provides a conceptual framework for research. Because causal models are meant to increase understanding of proposed relationships (Bourke, 1984), the relationships

included for testing in a causal model should have theoretical importance rather than being included because mathematically they may be shown to exist. In a discussion on causal modeling, Beamish (1998, 101-102) concluded that although establishing causation is not a simple matter, causal models remain a useful analytical device to illustrate the relationships that are hypothesized to exist between variables of interest. The initial processes of proposing causal relationships help to identify variables needing testing and to guide the analytical process (Bollen and Long, 1993).

After conducting a review of the relevant literature (see Chapter 2) and the consideration of obvious conceptual relationships, it was considered that evidence existed to support the inclusion of a range of variables in the proposed model. The variables include various background factors, intermediate variables to measure worship assembly participation, worship assembly planning, and worship assembly attitudes and faith maturity measured in two dimensions: vertical faith and horizontal faith. The model was developed to test the relationships that exist between these variables. Within this model, former variables may affect subsequent variables (Tracz, 1992). The model suggests that background factors could affect both worship participation and worship attitudes which in turn affect faith dimensions.

The General Model in Figure 3.1 identifies the framework for the construction of a general model causality moving from left to right.

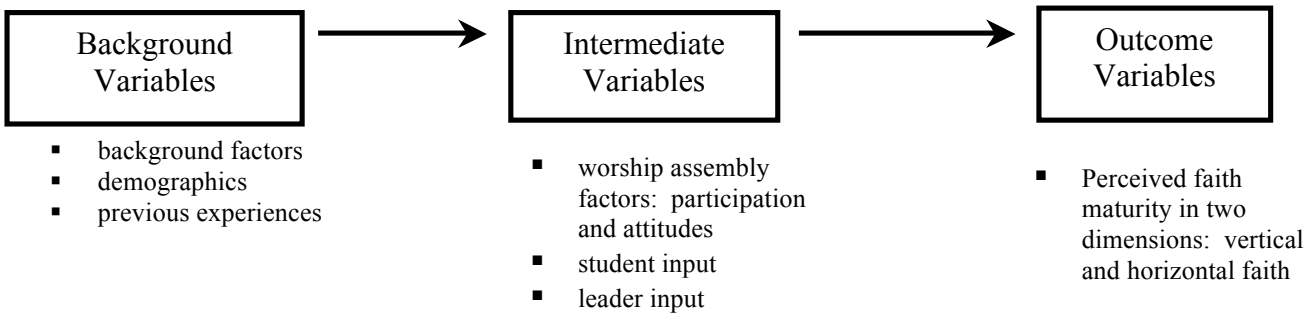


Figure 3.1 The General Model

It would be incorrect to assume this model is the only possible solution for the inter-relationships between variables. Rather, based on the literature and logically deduced relationships, this is but one of several that could be developed and tested.

In particular, thirteen variables were identified for incorporation into the model: 8 background variables (demographic / historical / experience data), 3 intermediate variables (worship assembly data) and 2 outcome variables (faith maturity in two dimensions). These variables are tabulated in Table 3.1.

Table 3.1 Proposed Variables in the Causal Model

<table>
<tr><th>Background Variables</th><th>Intermediate Variables</th><th>Outcome Variables</th></tr>
<tr><td rowspan="3">Gender
Age
Year at school
Father a Christian?
Mother a Christian?
Are You a Christian?
Previous Church Worship
Previous School Worship</td><td>Worship Planning</td><td rowspan="2">Vertical Faith</td></tr>
<tr><td>Participation in Worship Assembly</td></tr>
<tr><td>Attitudes to Worship Assembly</td><td>Horizontal Faith</td></tr>
</table>

Background variables are specific variables about which data will be collected. Both intermediate and outcome variables are made up of a number of dimensions best measured using a composite range of items relating to the intermediate or outcome variable thematic focus. Ajzen (1988) recommends the aggregation of item responses to attitudinal scales improves both the reliability and validity of the measure of attitudinal beliefs. In order to generate and focus responses on the intermediate or outcome variables, the use related attitudinal items were implemented as composite scales in the measurement of intermediate and outcome variables.

For the purposes of discussion, some of the variables have been grouped. Two intermediate variables form a “Participation in Worship Assembly” group. One variable forms the “Attitudes to Worship Assembly” group, and a further two variables form the “Faith Dimensions” group. The model in Figure 3.2 illustrates the hypothesized relationships between these groups of variables.

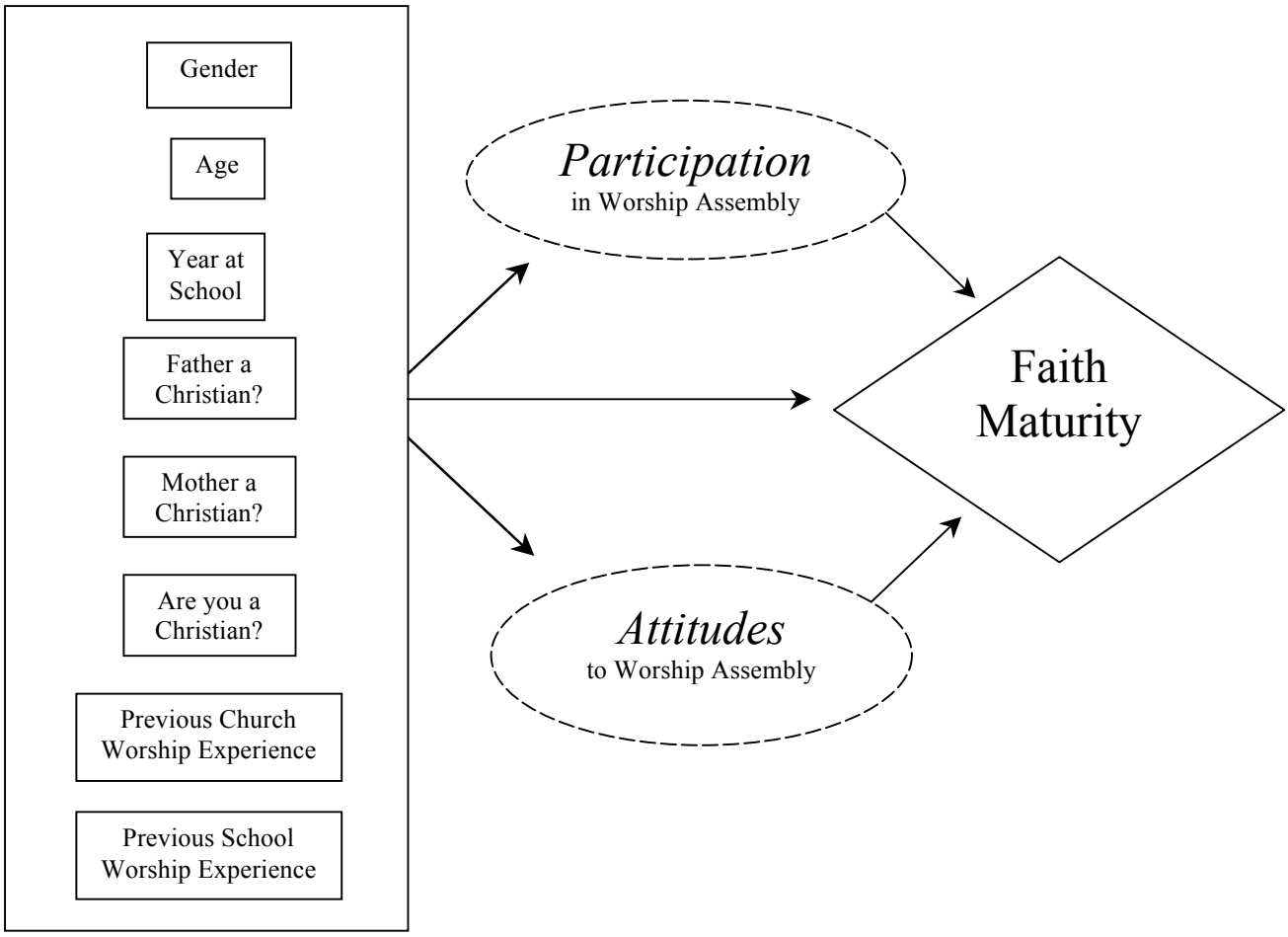


Figure 3.2 Proposed Causal Model

Defining the Constructs

The remainder of this chapter will be spent defining the background, intermediate and outcome variable groups and the causal paths proposed in the model.

Background Variables

The following background variables were included in the present study as important influences in high school student faith experience.

Gender

Strahan (1994) found females had higher levels of support for Adventist religious faith than did males. In a related study, Hughes (1993) found females to be significantly higher on the Christian Commitment scale. Gane (1997) found that males were more likely to self-report the parental influence upon their faith development than were females. As all of these studies report significant gender effects, a direct path in the model is expected from *Gender* to *Faith Maturity*. Also, as Gane (1997) found that girls are more likely to participate and lead out in high school worship assembly, a direct path is expected from *Gender* to *Participation in Worship Assembly*.

Age

Steinberg (1985) found that young adolescents tend to be more religious than late adolescents. Within a faith developmental framework, Fowler (1981) and Parks (1986) both theorized faith matures with age. However, in an Australian faith maturity study, Hughes (1993) found that faith maturity did not increase with increase in age. Rather, faith maturity remained stable across the high school years. Despite a lack of clear direction from previous research findings, a direct path is expected from *Age* to *Faith Maturity*.

Direct observation of worship assemblies at each of the three schools under investigation would seem to indicate younger adolescent students evidence a greater amount of audience participation and are less-inhibited with more positive attitudes towards the worship assembly. Dorman (1999) discovered that age has an effect on student attitudes towards religion. It is expected therefore that a direct path will exist between *Age* and *Participation in Worship Assembly*, and *Age* and *Attitudes to Worship Assembly*.

Year in School

It is expected that the results for the variable *Year at School* will be analogous with the variable *Age*. The inclusion of this variable however does give the ability to

distinguish between high school worship assembly experiences within year groups and the resulting faith maturity between year groups (see results in Chapter 5).

Father a Christian? & Mother a Christian?

The Valuegenesis study (Dudley & Gillespie, 1992) revealed that the home environment was the most influential institution in the faith development of students. McClintock (1995) confirmed that parents are a first and important continuing source of the values and faith experience acquired and maintained by young people. Dudley & Gillespie (1992) concluded that when both father and mother evidence Christian faith in their lives, students are more likely to reveal faith maturity. This finding was confirmed in a number of other studies (Dudley and Dudley, 1986; Gane, 1997; Hughes, 1993; McClintock, 1995; Strahan, 1994). On the basis of this evidence, a direct path is expected in the model between *Father a Christian* and *Faith Maturity* and *Mother a Christian* and *Faith Maturity*.

Dorman (1999) discovered student attitudes toward religion are influenced by parent's religious behaviour. Consequently, a direct path is also expected between *Father a Christian*, *Father a Christian* and *Attitudes to Worship Assembly*.

Are You a Christian?

It would be amiss to not recognize that each particular student's Christian or non-Christian experience should have a bearing on their worship attitudes and participation, as well as their faith maturity. A Christian student may evidence particular attitudes towards the worship assembly experience that differ from the non-Christian. Participation levels, also are likely to be significantly different between Christian and non-Christian students. A non-Christian student may evidence significantly different faith maturity responses. Consequently, a direct path is expected between *You a Christian* and the following variables: *Attitudes to Worship Assembly*, *Participation in Worship Assembly* and *Faith Maturity*.

Previous Church Worship Experience

Dudley & Gillespie (1992) found that church worship experiences of a positive nature were highly likely be a predictor of mature faith. Frequency of church attendance correlated with vertical faith and overall maturity of faith in two studies (Dudley & Gillespie, 1992; Gane, 1997). Frequency of church attendance was also correlated with involvement in church programming and planning. Consequently, a direct path is expected between *Previous Church Worship Experience* and *Faith Maturity*. A direct path is also expected from *Previous Church Worship Experience* to *Participation in Worship Assembly*.

Students come to the high school worship assembly context with pre-conceived belief and attitudinal structures, participation histories and worship experiences. These experience and attitudes may even play a role in the frequency of worship participation and the nature of attitudes of the student. In a review conducted by Kay, Francis & Gibson (1996), church going was shown to influence attitudes toward Christianity. Therefore, a direct path was expected in the model between *Previous Church Worship Experience* and *Attitudes to Worship Assembly*, between *Previous Church Worship Experience* and *Participation in Worship Assembly* and also between *Previous Church Worship Experience* and *Faith Maturity*.

Previous School Worship Experience

Experiences within the school worship assembly itself may have a bearing on attitudes, participation and faith maturity. It is expected that direct paths will exist between *Previous School Worship Experience* and the following variables – *Attitudes to Worship Assembly*, *Participation in Worship Assembly* and *Faith Maturity*.

Intermediate Variables

The next group of variables to be considered are the intermediate variables. These include worship assembly participation and student attitudes to worship assembly. They will be considered in turn.

Participation in Worship Assembly

McGrath (1999) suggests that the external observance of faith naturally leads to the inward appropriation of that faith. Faith development research has indicated the importance of increased involvement and participation in worship planning and worship activities in order to maintain the spiritual interest and relevance to adolescents (Dudley & Gillespie, 1992; Gane, 1997; Gillespie, 1988; Hughes, 1993; McClintock, 1995; Strahan, 1994). These studies further advocate the need for heightened involvement and participation in the faith-building activities of the home, school and church. Youlden (1988:171) noted that "Christ-centred weeks of prayer were key factors in contributing to the spiritual and faith development of Adventist High School students". Consequently, a direct path is expected between *Participation in Worship Assembly* and *Faith Maturity*.

Attitudes to Worship Assembly

Gane (1997) considered youth ministry events, such as high school worship assembly, to be significant features of the faith developing institutions for young people. He suggests where youth ministry programs such as worship assembly exist, a positive impact is made upon the faith development of young people (Gane, 1997). Further, Gane (1997) asserted that students actively involved in youth ministry tend to show more positive attitudes towards youth ministry and evidence high Christian commitment and more positive views of God in their faith maturity. Dudley & Gillespie (1992) discovered that attitudes towards church congregation are of vital importance in determining what happens to the faith experience. Hence, direct paths are expected in the model from *Attitudes to Worship Assembly* to *Faith Maturity*.

Dudley & Gillespie (1992) argue that commitment is heightened by participation and involvement and that through participation in ministry activities (such as worship assembly) events become owned by the student body. This process is a positive-attitude building process (Gane, 1997). However, it remains unclear whether attitudes determine participation or vice versa. Further, the possibility for reciprocal causation between worship assembly attitudes and worship assembly participation does exist. Although an interesting and relevant point of interest, examining this relationship would require a different kind of analysis and falls beyond the scope of the present

study. A recommendation is made for future research into the nature of this relationship.

Outcome Variables

The final variables to be considered in the causal model are the two dimensions of faith maturity: vertical and horizontal faith. These will be considered together for discussion purposes.

Faith Maturity in Two Dimensions: Vertical and Horizontal Faith.

As students may have different self-reports about different aspects of faith, it is possible that this outcome variable may need to be split up into several constituent outcome variables in the analysis of the model. In particular, vertical and horizontal faith will be investigated.

It is expected that *Faith Maturity* will have direct paths leading to it from *Gender*, *Age*, *Year at school*, *Father a Christian*, *Mother a Christian*, *You a Christian*, *Previous Church Worship Experience*, *Previous School Worship Experience*, *Worship Assembly Participation* and *Attitudes to Worship Assembly*. These links were discussed in previous sections earlier in this chapter.

Summary

This Chapter has presented the conceptual framework for the study by proposing background, intermediate and outcome variables for inclusion in a causal model. A causal model seeks to present hypothesized relationships between theoretical constructs (Beamish, 1998). In the interest of providing a theoretical framework and a guide for the analysis, this chapter discussed the causal model in light of the literature reviewed. The chapter discussed causal modeling as a powerful educational research analytical tool, proposed the initial model, and defined the constructs. Consequently, the model for analysis is now proposed and specific research questions identified.

The model for analysis showing the proposed links between background variables, intermediate variables and the outcome variables is shown in Figure 3.3.

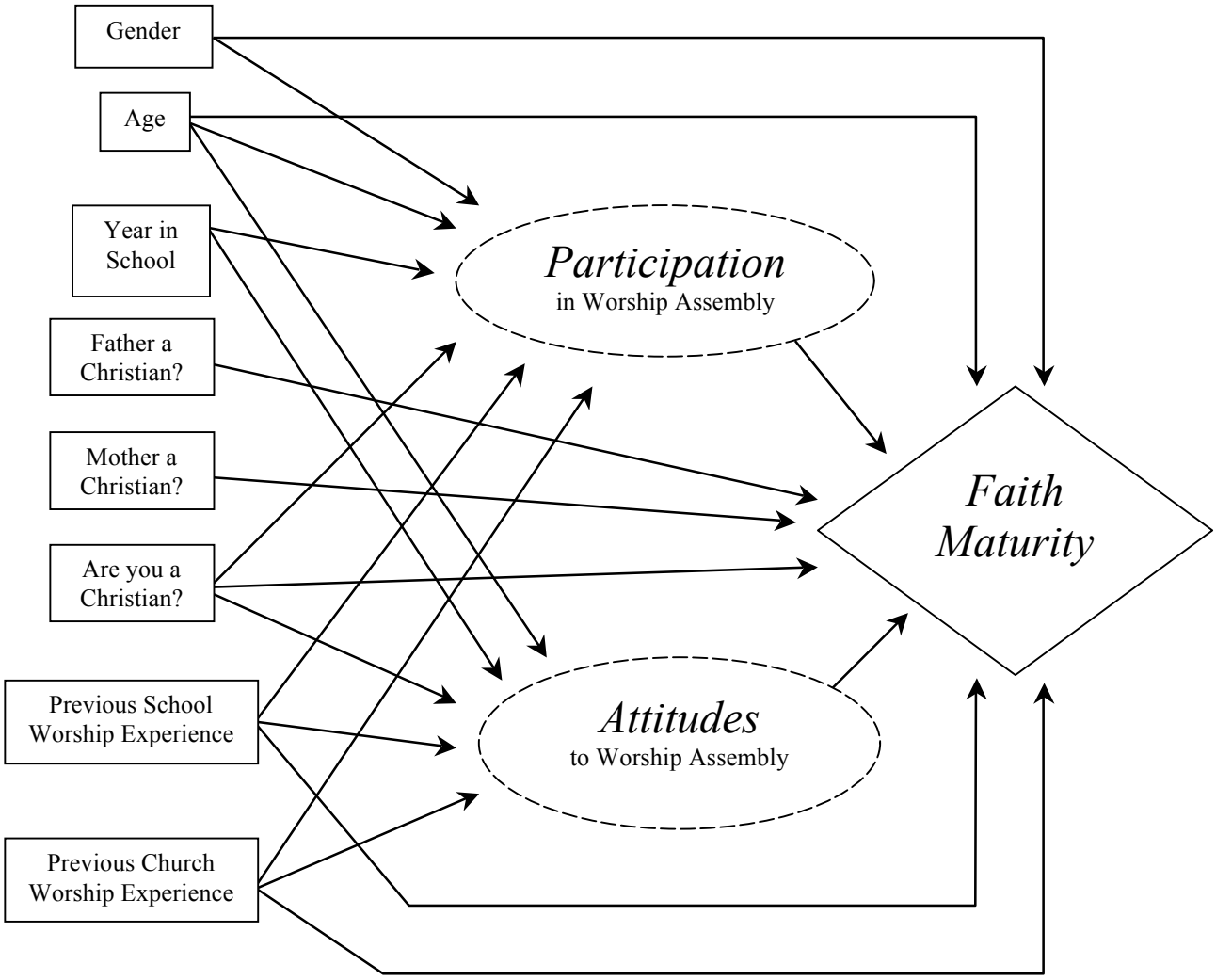


Figure 3.3 The Model for Analysis

Research Questions

In response to this causal model, this study seeks to address the lack of research relating worship participation, attitudes towards worship and the faith development of high school students in the high school worship assembly context.

The following specific research questions will guide the investigation.

1. What degree of faith maturity exists in high school students?
2. What is the level of student involvement in planning and participation in worship assembly, and to what extent are student dimensions of faith maturity influenced by planning and participation in worship assembly?
3. What are student attitudes to worship assembly, and to what extent are the student dimensions of faith maturity influenced by attitudes to worship assembly?
4. What background factors significantly influence the faith dimensions of high school students?
5. To what extent are student background factors related to student worship planning, active leadership participation, and attitudes towards the worship assembly?

In addition to the specific research questions, the following additional general research questions will guide the study.

- What is a reliable measure of faith maturity in the dimensions of vertical and horizontal faith?
- What participation opportunities exist for high school students in the worship assembly?
- What is a reliable measure of participation in worship?
- What attitudes towards the worship assembly exist in high school students?
- What is a reliable measure of attitudes towards the worship assembly?

These general and specific research questions form the basis for the development of construct measures, the questionnaire instrument for data collection and the analysis procedures used in the remainder of the study.

Chapter 4

Research Methodology

Introduction

Understanding faith development in school students is important (Gillespie, 1988; Gane, 1997). The present study investigated the faith maturity of high school students and the way that students' involvement in school worship assembly impacts upon their faith maturity. A model showing the hypothesised relationships between proposed variables has been presented in Chapter 3.

The present chapter considers the research design and methodology of the study. It begins with a discussion of the sample for the study, and then moves to discuss the instruments used in the study, and the nature of the analysis of the data collected during the study.

The Sample

Students in three Adventist high schools from the east coast of Australia were included in the sample for the study. The final sample included 840 students from the three schools ranging between year seven and year twelve. In this way data was collected from students that spanned the high school age group. Students and schools were included in the sample due to logistical reasons and their geographic proximity to the principal researcher.

First contact with each of the schools was made through the Principal (see Appendix A.1). Further contact was maintained through the high school chaplain, who is directly responsible for the high school worship assembly in each of the respective schools. Informal observations were conducted on the high school worship assembly in each school. Three key informant (Anderson & Arsenault, 1998) informal phone interviews were then conducted with the high school chaplains from each school as a background data gathering process (see Appendix A.2).

High school chaplains are intimate with the worship assembly administration, pre-planning and operation. The interviews provided assistance with the logistics of the research project and were used in the development of the questionnaire. The interviews were also used to establish construct validity for the worship planning, active leadership participation, and attitudes towards worship assembly measures developed for use in the questionnaire.

Data was collected for the study in a variety of ways. As mentioned previously, data was collected about the school worship assembly by way of a telephone interview with each of the school chaplains. Data was then collected from students using a questionnaire that was developed for the study. In fact one of the main purposes of the study was to develop reliable ways of measuring student faith maturity and their attitudes and levels of participation in school worship assembly. The student questionnaire will now be considered in more detail.

The Student Questionnaire

The student questionnaire is shown in Appendix A.5. This questionnaire was used to collect student data across a range of background, intermediate and outcome variables. The procedures used to measure each variable will now be considered.

Background Variables

The student questionnaire was used to collect data on a range of student background variables. In fact, the first nine questions in the questionnaire were used to determine student background data, including: year in school, gender, age, mother's Christian orientation, father's Christian orientation, the student's Christian orientation, Christian denomination of association and the student's religious affiliation. Following these initial questions were two questions aimed at determining the students' previous worship experience: one question relating to church worship experience and one question relating to school worship experience. All of the above questions required responses of a either a dichotomous or ordinal nature. Question twelve was used to

assess a student's perceived overview of their own involvement in worship assembly on a ranking continuum.

Intermediate Variables

The student questionnaire contained items to measure two intermediate variables: students' participation in worship assembly and their attitudes to worship assembly. These will be considered in turn.

Worship Assembly Participation

Worship assembly participation items were generated on the basis of the key informant interviews with high school chaplains and on informal observation of the high school worship assembly by the researcher. In harmony with these observations and informal interviews, student participation in worship assembly was defined as consisting of two sub-divisions: Worship Planning and Participation in Worship Assembly.

1. Worship Planning Scale

Student involvement in worship planning was measured using five items with a five point Likert response scale. The response scale included the following range: 1 (Never), 2 (Sometimes, 1 – 2 times a term), 3 (Regularly, once every 3 weeks), 4 (Often, once every 2 weeks) and 5 (Always every week). The individual items were designed to assess a student's individual involvement with the pre-planning of worship assembly, its organization and the administration behind the corporate high school worship assembly event. Original individual items were generated post- key informant interviews.

2.1 Active Leadership Participation Scale

Active leadership participation was measured using nineteen original items with a five point Likert response scale (the same response range as worship planning detailed above). This collection of items was designed to measure student involvement in activities that require them to actively lead out during school worship assembly. Students were then asked an open-ended question in which they were encouraged to

give reasons for their level of involvement in leadership activities. There, student responses provided additional insights into student participation in leadership activities.

2.2 Perceived Audience Participation scale

Participation is not one sided – there are many kinds of involvement in the worship assembly at high school. However because students are required to attend worship assembly, their participation is somewhat expected. In response to this reality, a range of items were included in the student questionnaire to measure students' perceived participation and involvement as individuals and as a worshipping audience (see the 4th page of the student questionnaire, Appendix A.5).

Attitudes to Worship Assembly

The second of the intermediate variables was designed to measure student attitudes to worship assembly.

An attitude is a student's own appraisal of the object of the attitude – it is the way he or she feels about or toward this object (Ajzen, 1988). Kristensen, Pedersen & Williams (2001) suggest the affective component of attitude can be seen in measured statements representing a continuum ranging from unfavourable to favourable feelings or emotions regarding a particular issue. This approach was adopted for the present study.

Since a person can hold both positive and negative attitudes about the objects of belief, an attitude can be thought of as being related to a set of person's beliefs about the object rather than to any one belief (Greive, 1992). According to psychometric theory, no single item is a pure measure of the construct of interest (Braithwaite & Scott, 1991). Rather, a construct is best measured by a number of different items that converge on the theoretical meaning of the construct while diverging on the irrelevant aspects that are being unavoidably assessed concurrently. Ajzen (1988) concurred that this aggregation of a number of related items improves both the reliability and validity of the measure of attitudes.

Consequently a collection of items relating to 4 attitudinal themes were included in the questionnaire instrument so as to gain a cluster of responses around those themes. The four attitudinal themes of interest which emerged from the literature, key informant interviews and worship assembly observations included: perceived audience participation, enjoyment, relevance and perceived encounter with God. It was expected that student attitudes in these areas would have a significant bearing on the faith maturity of students.

Attitudes towards worship assembly were measured using twenty-eight original items relating to the 4 attitudinal themes discussed above (see Appendix A.5). The twenty eight items included a six point Likert ordinal response scale with the following range: 1 (strongly disagree), 2 (disagree), 3 (uncertain, leaning towards disagree), 4 (uncertain, leaning towards agree), 5 (agree) and 6 (strongly agree). The advice of Converse and Presser (1986 in Greive, 1992) was adopted, who recommended that no middle alternative be allowed on the Likert scale. As many as one fifth of a sample will tend to choose the neutral position on any one item rather than choose a weak tendency.

Outcome Variables

Two dimensions of faith were distilled from the literature and focussed upon for the measurement of high school student faith maturity: vertical faith and horizontal faith. Faith maturity was measured using the Faith Dimensions Scale developed in the present study with scales designed to measure the two outcome variables: vertical faith and horizontal faith. The procedures used to develop these scales are outlined below.

Faith Dimensions Scale Development

Benson et al. (1993) developed a 38 item Faith Maturity Scale designed to focus on the indicators of faith rather than on faith itself. It was a criterion-based scale and has demonstrated a good reliability (Cronbach's Alpha = 0.87). Because of its content validity and reliability, the scale has been included in studies involving Seventh-day Adventist church constituents in the United States and in Australia (Dudley & Gillespie, 1992; Gane, 1997; Hughes, 1993; Strahan, 1994).

Further, the Faith Maturity Scale produced two factorially distinct sub-scales (Benson et al., 1993). The first scale (Cronbach's Alpha=0.88), labelled *Vertical Faith*, related to the content of faith, understanding of God's interaction with the world and of one's transformation in this divine encounter. The second scale (Cronbach's Alpha=0.82), labelled *Horizontal Faith*, was related to agentic faith. This is the enaction of faith in everyday life through obligation and action of service and social justice on the human plane. Permission for the use and modification of the Faith Maturity Scale was granted[5].

Hughes (1993), drawing on the work of Benson et al. (1993), and in consultation with the Australian Valuegenesis committee, adapted the two-dimensional Faith Maturity Scale to the Australian context. Three sub-scales developed by Hughes were considered appropriate to the current study. These scales were titled Mature Faith (Cronbach's Alpha=0.87), Christian Commitment (Cronbach's Alpha=0.92) and Social Responsibility (Cronbach's Alpha=0.84). Because the items from these scales had demonstrated satisfactory reliability in the Australian context, they were considered for inclusion in the development of the Faith Dimensions Scale in the present study. Where possible, Faith Maturity Scale items modified by Hughes (1993) remained unmodified in the present study to preserve validity and reliability. Some changes were made to strengthen the import of particular items.

As a result of the above selection processes, the key issue for the present study became that of describing the signs in behavioural perception and attitude that faith was at work in the life of a student in two dimensions: vertical and the horizontal. Items for inclusion in the present measure were selected and adapted to such an end based on the procedure outlined in Table 4.1.

A five member expert panel consisting of a Seventh-day Adventist church pastor, a quantitative researcher from the Faculty of Education, Avondale College and three other Avondale College lecturing staff were consulted in the modification of items to

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[5] Taken from Benson, P. L. & Eklin, C. H. (1990). *Effective Christian Education: A National Study of Protestant Congregations*. Minneapolis: Search Institute. © 1988 Search Institute, Minneapolis, MN. Used by Permission.

be used from the Faith Maturity Scale for the measurement of faith dimensions in an Australian context in the present study. Items were combined from the Faith Maturity Scale (Benson et al., 1993), from the Australian Valuegenesis effort coordinated by Hughes (1993) and some were original items to the present investigation.

Table 4.1 Procedure for the Development of the Faith Dimensions Scales

1	The scale required satisfactory reliability and construct validity for two dimensions of faith as defined by the literature and previous studies: vertical and horizontal faith.
2	The adjustment of some FMS (Benson et al., 1993) item's linguistic expression to an Australian language expression.
3	The deletion of archaic items of no relevance to Australian secondary students.
4	The inclusion of select items previously modified from the FMS to the Australian context (Hughes, 1993).
5	The inclusion of a limited number of original items.
6	The scrutiny of an expert panel.

As a result, thirty three belief statement items were selected for the measurement of vertical and horizontal faith dimensions in this study. Students were asked to respond to the thirty three items using a six point Likert ordinal response scale with the following range: 1 (strongly disagree), 2 (disagree), 3 (uncertain, leaning towards disagree), 4 (uncertain, leaning towards agree), 5 (agree) and 6 (strongly agree). The items reflect the sentiment of theory, experience, previous studies (Benson et al., 1993; Hughes, 1993), and the authentication of the advisory panel.

Questionnaire Pre-Test

In order to strengthen the research process, a pre-test of the questionnaire was carried out. The questionnaire was administered to a group of 12 students of varying age from a local Christian high school in order to test the language level, layout and the time taken to complete it. As a result of the test run a number of changes were made to the layout of the questionnaire to make it more user-friendly for secondary age students (see Appendix A.5). The inclusion of cover page consent information (see Appendix A.3) was added to the questionnaire before the administration of the instrument in the main study.

Data Collection

After obtaining permission from each principal to access their schools, data was collected over a period of two weeks in Term 2 of 2001. School principals, teachers and the researcher reached the consensus that either the worship assembly period, or the religious studies period during normal timetabling, be used for the collection of data. School one chose to complete the survey during worship assembly time under the guidance of the researcher. Schools two and three chose to complete the questionnaire during religious studies class under the supervision of normal timetabled teaching staff. In this later circumstance, an introductory script (see Appendix A.3) was read to students before administration of the survey in order to guide the teacher administrating the questionnaire and to help students in the completion process.

Data Analysis and Methods

Once the data from the students were collected, coded and entered, descriptive analysis of the items was carried out and a correlation matrix was used to study bivariate relationships. Multivariate analyses were then undertaken to develop scales using factor analysis and reliability testing.

Principal component factor analyses using SPSSx varimax rotation (SPSS Inc., 1993) were applied to the data generated by the worship planning, participation in worship assembly, attitudes to worship assembly, and the faith dimensions items in the questionnaire. The aim of using varimax is to produce independent scales. For this reason, items which load onto two or more scales with a loading difference of less than 0.3 were omitted. Further, in order to maximize common variance of the items which are loading onto a single factor, the items with a loading of 0.3 or less were discarded. In constructing the scales, items were deleted one by one and at each step, the reliability of the scale was checked to ensure that the scale reliability (measured using Cronbach's Alpha) was optimized by the removal process.

These factors were turned into composite scales by averaging all item scores across the factor for each student respondent. Any items with negative loadings were

recoded. As a result, each student respondent received a measure for each of the five scales developed. Because the composite scales involved the addition of individual ordinal item scores into one distinct scale, they did not all have a natural metric.

An analysis of variance (ANOVA) was carried out to determine if school, gender or year in school differences had a significant effect on the composite scale variables. The results of all analyses are reported in Chapter 5.

Multiple linear regression was used to investigate possible causal relationships in the block-recursive model outlined in Chapter 3 (see Figure 3.3). Standardized partial regression coefficients were calculated to test the model and to indicate the strength of both direct and indirect relationships found within the model.

Neuman (2000) and Keeves (1988) both suggest educational research can be strengthened by the utilisation of a range of methods of data collection and analysis. The present study's main purpose was for analysis of the causal model proposed in Figure 3.3 in relation to the research questions. However, in an effort to reinforce quantitative results with self-report qualitative responses, qualitative data was gathered about question 15 and 35. Responses to these questions were used to strengthen statistical trends discovered in the above analyses with the personal comments and illustrations of students.

Chapter 5

Results of the Study

Introduction

Before discussing the relationships between variables in the general model for analysis, it is interesting and informative to analyse the individual items from the questionnaire responses. This chapter presents a descriptive analysis of the data arising from the questionnaire responses of high school students from the three Christian high schools in the Hunter Region. The descriptive analysis firstly profiles the respondents by background factors. Further the data arising from the creation of scales through factor analysis is used to explore participation in worship assembly, attitudes to worship assembly, and faith maturity in the Vertical and Horizontal Faith Dimensions.

Table 5.1 details the descriptive statistics and includes significant correlations ($p<0.01$) for each variable.

Background Factors

Results for the background variables including gender, age, year in school, school, father a Christian, mother a Christian, you a Christian, Christian denomination, religion, previous church worship experience and previous school worship experience provided the following profile of the sample.

Gender

Of the 840 students who participated, just less than 48% were female (N=399), and just over 52% were male (N=435). This indicates that, although there were slightly more males than females, the sample was divided quite evenly amongst the sexes.

Table 5.1 Correlations (beta x 100) and Descriptive Statistics for Variables Used in the Study

Significant Correlations (p<0.01)	Year in School	Gender	Age	Father a Christian?	Mother a Christian?	You a Christian?	Church Worship Experience	School Worship Experience	Vertical Faith Dimension	Horizontal Faith Dimension	Attitudes to Worship Assembly	Worship Planning	Active Leadership Participation
Year in School													
Gender													
Age	95												
Father a Christian?													
Mother a Christian?				63.7									
You a Christian?		13.6		56.9	70								
Church Worship Experience				37.1	41.1	42.3							
School Worship Experience	30.3		33.6	25.8	26.8	23.2	41.2						
Vertical Faith Dimension		13.9		41.6	49.6	65.3	52.4	25					
Horizontal Faith Dimension		28.9		15.5	13.1	28.1	18.7		50				
Attitudes to Worship Assembly	-16.8	19.7	-15.2	18.1	20.8	39	26.7		67.2	59.2			
Worship Planning	10.2				9.3	13.6	18.9	14	18.4	16	20.7		
Active Leadership Participation					10.7	12.6	21.6	9.7	20.5	17.3	21.1	66.2	
Mean	9.18	1.48	14.52	1.69	1.8	1.18	5.1	6.63	4.59	3.84	3.72	1.10	1.17
Median	9	1	14	2	2	1	7	7	4.92	3.85	3.85	1.0	1.0
S.D.	1.6	0.5	1.68	0.46	0.4	0.38	2.68	3.57	1.22	1.04	0.82	0.22	0.39
Range[1]	7 – 12	1 – 2	11 – 18	1 – 2	1 – 2	1 – 2	1 – 8	1 – 12	1 – 6	1 – 6	1 – 6	1 – 5	1 – 5
N	834	834	832	803	817	815	818	831	728	764	685	811	813

[1] The Likert scales for these constructs ranged between 1 and 6 (Vertical, Horizontal Faith, Attitudes to Worship Assembly) or 1 and 5 (Worship Planning, Active Leadership Participation).

Age

Student age ranged between 11 and 18 years with an average age of approximately 14.5 years.

Year in School

Participating students ranged from year 7 through to year 12, as is indicated by the average year in school (9.18). The largest year percentile, just over 20%[2] of students, were found to be from a year 9 classroom. A slight majority of students were from years 7 through 9 (58% cumulative).

School

Table 5.2 illustrates the distribution of the sample amongst the three schools. Clearly, School 3 had the bulk of students participate in the sample (just over 48% of the sample, N=405 of a possible 840). This was expected as School 3 was the largest high school of the three who participated.

Table 5.2 Students by School

School No.	% of Sample	No. of students
School 1	27.3	229
School 2	24.5	206
School 3	48.2	405

Christianity in the home

Students indicated in 69% of cases their father was a Christian. Further, 80% of students specify their mother a Christian. In regard to their own Christianity, 82% of students declared they were Christian. This indicates that the majority of students in the sample identified themselves as having a Christian family background.

[2] These statistics are rounded to the nearest whole percentage.

Christian Denomination & Religion

When asked to report on their association with a Christian denomination, a slight majority of nearly 57% of students indicated 'Seventh-day Adventist'. Students aligned themselves with the Anglican denomination in nearly 13% of cases, and also with the Uniting Church (nearly 8%), the Roman Catholic Church (6%) and the Baptist Church (3%) denominations. Nearly 10% of students indicated 'other' as their denomination of association. Figure 5.1 illustrates the ranges of denominational association in the sample.

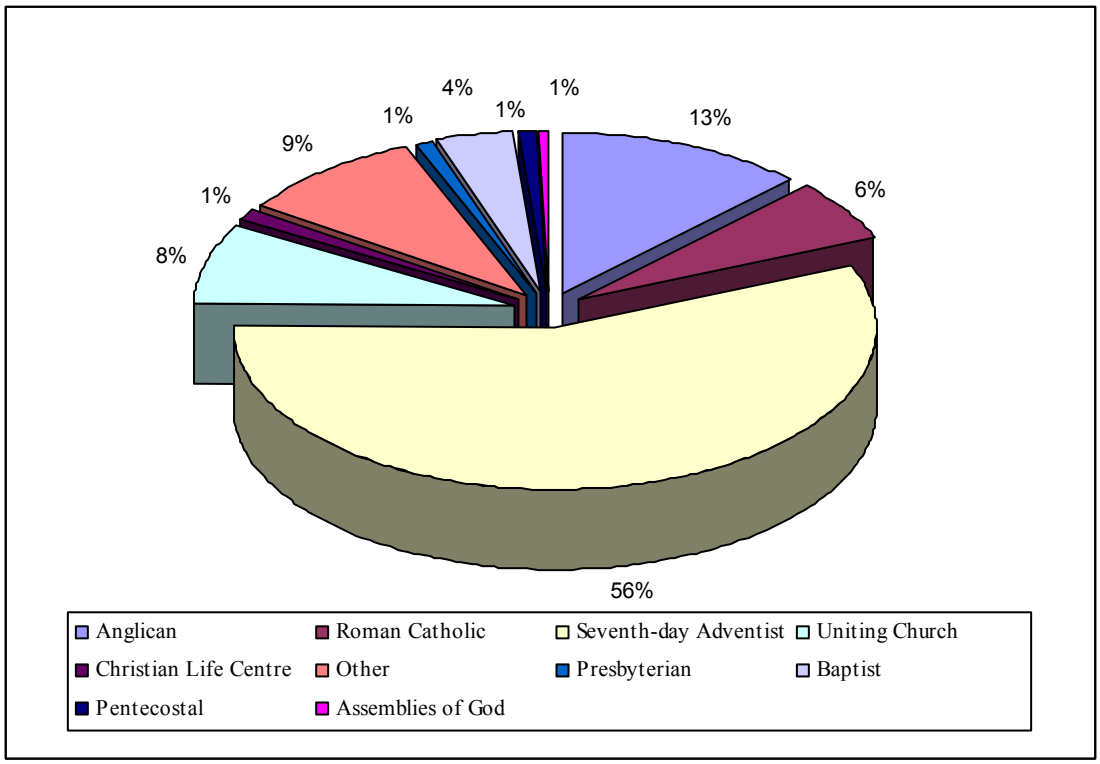


Figure 5.1 Students by Christian Denomination

Just over 84% of students indicated they were affiliated with Christianity (that is they answered 'not applicable, I'm a Christian'). This is slightly more than indicated they were a Christian in the 'are you a Christian?' variable. Students indicated minimal association with any of the other religious groups. Twelve percent of students said they were associated with no religious group.

Previous Church Worship Experience

On average, the students were quite experienced with church worship. With a possible range between 1 (never attend church worship services) and 8 (attend church worship services more than once a week), average church worship experience was 5.1 (mean). This score indicates that, on average, students attend a church worship service approximately once every 3 weeks. This result is qualified further by the polarising of experience towards two extremes – students with less experience, and students with greater experience.

Cumulatively, close to 58% of students attended church services once a month or more. This would indicate a group of students whose experience leant towards greater church worship experience. On the other hand a further cumulative group of close to 42% attended church services two or three times a year or less. This would indicate a second group of students whose responses indicate they have less church worship experience.

Thus students came to this study roughly in either of two groups relating to previous church worship experience: greater experience, and lesser experience. The group with greater church worship experience was only slightly larger with 58% of students than the group with less worship experience with 42% of students.

Previous School Worship Assembly Experience

Students in this study had been attending a primary or high school which provided a worship assembly period at least once a week for 6.63 years on average. However, interpreting this statistic as great amount of experience for the student sample as a whole is dangerous as their worship experience is spread evenly across the years and the sample as outlined in Table 5.3.

Students therefore brought to this study a wide range of previous worship experiences and frequencies in attendance at previous high school worship assemblies.

Table 5.3 Student Previous Worship Assembly Experience

Years in attendance at a school providing a worship assembly	% of sample	No. of students
1	8.1	67
2	9.7	81
3	9.1	76
4	7.6	63
5	6.3	52
6	5.9	49
7	7	58
8	9.4	78
9	9.4	78
10	10	83
11	7.9	66
12	9.6	80

Construct Development & Results

Five constructs were developed for use in the causal model: Worship Planning, Active Leadership Participation, Attitudes to Worship Assembly, Vertical Faith Dimension and Horizontal Faith Dimension. The procedures for development of scales were outlined in Chapter 4. The results for these scales are discussed below.

Worship Planning

This scale was developed as a measure of student involvement in the planning and preparation aspects of high school worship assembly (see the questionnaire, Appendix A.5, Question 13). Principal component factor analysis and a scree test indicated the presence of one factor. The factor was refined by the elimination of items loading below 0.3 and reliability checked at each stage of the removal process. The loadings of the final factored 5 items are tabled in Table 5.4.

Satisfactory reliability was produced for the scale (Cronbach's Alpha) at r=0.81. Following scale construction, the 5 items were added together to form a new construct for each student called *Worship Planning*.

The Worship Planning construct produced a mean of 1.17 (S.D.=0.22) in an available range between 1 (never participate) and 5 (participate every week). This result indicated students were involved in very little planning or production of the worship assembly event. The maximum amount of involvement individually in planning indicated was a 4 (Often, Once every 2 weeks). In 70% of the student sample, individuals indicated they never had involvement with the worship planning of the high school worship assembly. In summary, the Worship Planning construct suggested students did not often participate in planning and administration of the high school worship assembly.

Table 5.4 Factor Loadings for Worship Planning Construct

Worship Planning Scale, Alpha = 0.81		
No.	**Item**	**Loading**[3]
13.4	Brainstorming with leadership team	.84
13.2	Organising one part of the event	.84
13.1	Overall make up of events	.83
13.5	Offering suggestions	.81
13.3	Contacting guest speaker, arranging a visit	.46

Student participation in worship planning was significantly different between schools[4]. School 3 evidenced a significantly higher (F=5.456, *df*=(2,810); p=0.004) degree of involvement in worship planning than Schools 1 and 2. Year in school also had an impact on involvement in worship planning (F=5.211,*df*=(5,807); p=0.0). The least amount of worship planners came from year 10 (mean=1.0944). The low-level contour for involvement seems to peak during the final years of high school. As a group, year 12 students worship planned more often than others with a mean of 1.3075. However it should be noted that this is still low on the scale (only slightly greater on the scale than "never").

Within limited worship planning involvement of students, it is interesting to note the significant correlations ($p<0.01$) existing between Worship Planning and other variables (see Table 5.1). Worship Planning correlated significantly with active

[3] Loadings for all construct variables have been rounded to the nearest two decimal places.

[4] Appendix B contains a full tabulation of p-value and descriptive statistics for ANOVA analyses.

leadership participation (beta[5]=66.2), with attitudes towards worship (beta=20.7) and with previous church worship experience (beta=18.9) among other variables.

Active Leadership Participation

The Active Leadership Participation construct was a scale designed to measure the level of active, up-the-front, leadership-style participation of students in high school worship assembly. Like the Worship Planning construct, student responses to Active Leadership Participation ranged between 1 (never) and 5 (always, every week). Participation activities ranged from singing worship songs through to performing a drama or leading out in a quiz. Items from Question 14 in the Questionnaire (see Appendix A.5) were formulated from informal key-informant interviews and observation in the worship assembly context (as was discussed in Chapter 4).

Following principal components factor analysis, one factor was found to be in operation in the data for participation. Table 5.5 details the factor loadings for the 18 items included in the construct. These 18 items, producing one factor with reliability r=0.83, when added together formed a new construct labelled *ActiveLeadership Participation*.

The Active Leadership Participation construct produced a mean of 1.10 (S.D.=0.39) on a scale ranging between 1 (never participate) and 5(always participate, every week). This indicated even less involvement by students in active participation than in the worship planning for high school worship assembly. The highest participation response score for this scale was a 3 (Regularly Participate, once every 3 weeks) out of the possible 5. Student responses to the Active Leadership Participation Scale indicated students did not often actively participate in high school worship assembly.

Active Leadership Participation varied between year groups in school (F=4.278, *df*=(5,805); p=0.001). These differences, although they seem slight on the five-point frequency scale are statistically significant. Active Leadership Participation seemed to be polarised throughout the year groups. Year 7 evidenced the greatest level of participation with a mean of 1.1522. From this point the trend for participation

[5] Beta x 100.

declined to an average participation rate of 1.0605 (mean) in Year 10. By Year 12 Active Leadership Participation had risen to 1.1475 (mean).

Active Leadership Participation was strongly correlated with previous Church worship experience (beta=21.6), positive attitudes towards worship assembly (beta=21.1) and the vertical faith dimension (beta=20.5).

Table 5.5 Factor Loadings for Active Leadership Participation Construct

Active Leadership Participation Scale, Alpha = 0.83		
No.	**Item**	**Loading**
14.7	Drama or skit	0.71
14.15	Mime	0.69
14.19	Debate	0.65
14.12	Testimony, sharing time	0.64
14.10	Introducing a speaker	0.63
14.1	Public prayer	0.61
14.4	Giving a talk	0.61
14.16	Quiz	0.60
14.11	Interactive feature	0.60
14.14	Bible reading	0.58
14.13	Artwork, decoration	0.52
14.9	Interview	0.51
14.8	Creative expression	0.49
14.18	Panel discussion	0.48
14.6	Musical item	0.47
14.2	Singing in a worship leading group	0.43
14.5	Making a video	0.38
14.3	Playing an instrument for worship	0.37

The results for the Worship Planning Scale and Active Leadership Participation Scale were analogous. They indicated that students had minimal and limited involvement in the planning, and active, up-the-front-style leadership of a high school worship assembly program.

Perceived Audience Participation Scale

Because students are required to attend worship assembly, their participation is somewhat expected. In response to this reality, a range of items were included in the

student questionnaire to measure students' perceived participation and involvement as individuals and as a worshipping audience. This measure was not used in the analysis, as it did not produce a robust, single factor. However, Perceived Audience Participation items had originally been drawn from the range included in the attitudes to worship assembly section. Attitudes to worship assembly did factor into a single, robust, reliable scale. Subsequently, perceived audience participation was included in the attitudes towards worship assembly scale.

Attitudes to Worship Assembly Scale

Student attitudes to worship assembly were assessed by considering items that covered the four main areas significant to this study, namely: perceived audience participation, enjoyment, relevance and perceived encounter with God. It was not the intent of this project to develop psychometrically sound indices for each of these 4 dimensions of student attitudes. Rather, the intent was to discover the attitudes of students as a single construct.

These attitudes were assessed using a 6-point Likert Scale with the following range: 1 (strongly disagree), 2 (disagree), 3 (uncertain, leaning towards disagree), 4 (uncertain, leaning towards agree), 5 (agree) and 6 (strongly agree). Following principal components factor analysis, one factor was found to be in operation in this data. Reliability for the scale was extremely high at r= 0.96. Table 5.6 details the factor loadings for each of the 28 items included in the construct *Attitudes to Worship Assembly*.

On average, students were found to be just above the midpoint (3.5) in reporting a mean of 3.72 (S.D. = 0.82) and a median of 3.85. Students therefore had positive attitudes in general towards the high school worship assembly.

In terms of attitudes towards worship assembly, the data set was slightly negatively skewed. Cumulatively, 68% of students indicated they were leaning towards a positive attitude towards high school worship assembly. In other words, 68% of students responded higher than the midpoint of the scale (3.5) with positive attitudes to worship assembly. This means that 32% of the student sample cumulatively scored

lower than the midpoint of the scale and possessed negative attitudes towards the high school worship assembly.

Table 5.6 Factor Loadings for Attitudes to Worship Assembly Construct

Attitudes to Worship Assembly Scale, Alpha = 0.96		
No.	**Item**	**Loading**
WA 22	The ideas talked about in worship assembly help me in my relationship with God.	0.84
WA 21	Worship assembly is interesting, engaging and relevant to my needs.	0.83
WA 6	I enjoy worship assembly.	0.82
WA 3	I learn a lot during worship assembly.	0.80
WA 28	I concentrate on what is being presented during worship assembly.	0.81
WA 8	If worship assembly was optional, I would still choose to attend.	0.80
YG 24	I feel close to God during worship assembly.	0.79
WA 1	Worship assembly encourages me to think.	0.79
WA 10	I look forward to worship assembly each week.	0.79
WA 20	I want to know more about Jesus as a result of the worship assembly in my high school.	0.78
WA 19	What I experience in worship assembly will help me in later life.	0.77
WA 7	I want to be challenged to think about God-centred issues and ideas.	0.77
WA 9	Assembly encourages me to ask questions about life.	0.76
WA 12	I am challenged to do something about my relationship with God during assembly.	0.74
WA 4	In worship assembly, I feel like we worship God with meaning.	0.74
WA 25	I have been confronted with the greatness of God and how he has saved me during worship assembly.	0.73
WA 24	I don't hold back in worshipping God during worship assembly.	0.71
WA 13	The only reason I attend worship assembly at school is because it is compulsory.	0.71
WA 5	I try to avoid being distracted during worship assembly.	0.71
WA 27	I listen to the speaker during worship at assembly.	0.71
WA 15	In worship assembly I concentrate on what is being sad by the guest speaker.	0.70
WA 11	Worship assembly is boring.	0.68
WA 2	If worship assembly was optional, the only reason I would go would be to hang out with my friends.	0.62
WA 14	Issues that affect my life are discussed in worship assembly.	0.57
WA 26	I sing during worship at assembly.	0.57
WA 17	I like worship assembly when it is interactive and encourages involvement.	0.56
WA 23	I think we should have more than just one worship assembly per week.	0.56
WA 18	My friends and I talk about the issues after worship assembly has finished.	0.55

Attitudes towards high school worship assembly were slightly gendered ($F=27.657$, $df=(1,683)$; $p=0.0$) with females (mean=3.8894) possessing slightly more positive attitudes towards assembly than males (mean=3.5643). Attitudes also varied between schools with School 3 possessing more positive attitudes than Schools 1 and 2

(F=4.495, *df*=(2,682); p=0.011). Further significant differences were found within year groups with Year 7 having the most positive attitudes towards high school worship assembly (mean=4.0883). Attitudes generally declined throughout the high school years.

Attitudes were significantly correlated with both Vertical (beta=67.2) and Horizontal (beta=59.2) dimensions of faith. These correlation results were the highest of all variables in the study (see Table 5.1). Both student Christianity (beta=39) and previous church worship experience (beta=26.7) were also significantly correlated with positive attitudes towards the high school worship assembly. Attitudes were negatively correlated with Year in School (beta=-16.8). this means as students progress through high school, their attitudes towards high school worship assembly becomes increasingly negative. This is a significant result analogous to the ANOVA results discussed above.

Faith Dimensions Scale

Maturity of faith was measured in students by using the Faith Dimensions Scale, focussing on vertical and horizontal faith. Principal components factor analysis using varimax rotation and Kaiser normalization authenticated the existence of two reliable factors in the data with reliabilities of r=0.95 (vertical faith) and r= 0.85 (horizontal faith). Vertical faith included 14 items, while horizontal faith included 7 items. Table 5.7 details the loadings and items included in each of these scales.

Vertical Faith Dimension

Student questionnaire responses ranged between 1 (strongly disagree) and 6 (strongly agree) in response to the items in Table 5.7. Students indicated a robust degree of agreement with items from the Vertical Faith Scale. On average, students reported a vertical faith mean of 4.59 (S.D.=1.22) which was below the median of 4.92 (within a range of 1 – 6). This indicated students generally had a mature vertical faith dimension.

Table 5.7 Factor Loadings for the Faith Dimensions Constructs

Faith Dimensions Scale			
No.	**Item**	Component 1 Loadings **Vertical Faith** Alpha = 0.95	Component 2 Loadings **Horizontal Faith** Alpha = 0.85
YG 1	I believe there is an all-powerful God.	0.84	
YG 19	God is interested in me and my life personally.	0.84	
YG 9	My life is committed to Jesus Christ.	0.83	
YG 5	God is in control of the destiny of this world.	0.82	
YG 6	I want to learn about God while I am still young.	0.82	
YG 14	God is more powerful than the forces of evil.	0.82	
YG 30	Jesus Christ, when I ask him to, forgives and forgets every single bad or wrong thing I have done.	0.81	
YG 21	I can rely on God's help when I feel bad.	0.81	
YG 8	God still loves me even when I have done wrong.	0.80	
YG 31	I feel comfortable talking to God during the day.	0.78	
YG 22	I am in awe of the beauty of God's creation.	0.77	
YG 2	I take time for periods of prayer in order to talk to God.	0.74	
YG 11	God loves bad people just as much as he loves good people.	0.72	
YG 20	God is not important to me at this stage of my life.	0.49	
YG 34	I feel like doing something about reducing pain and suffering in the world.		0.74
YG 33	I go out of my way to show love to people I meet.		0.73
YG 27	I care a great deal about reducing poverty in my country and throughout the world.		0.71
YG 32	I give proportions of my own time and money to help other people.		0.71
YG 29	I do things to help protect the environment.		0.71
YG 15	In my free time I help people who have problems or needs.		0.70
YG 13	I am active in efforts to promote world peace.		0.66

Responses to the Vertical Faith Scale were strongly negatively skewed which supports the presence of a strong vertical faith in the student sample. Cumulatively, 81.5% of students reported above the midpoint for this scale (3.5) indicating a strong majority of students had a mature Vertical Faith Dimension.

The Vertical Faith Dimension was significantly gendered (F=14.237, *df*=(1,726); p=0.0) with females (mean=4.7693) having a stronger vertical faith than males (mean=4.4295). The Vertical Faith Dimension varied across the years of high school with year 7 evidencing the strongest degree of vertical faith (mean=4.9398). This

strength declined to Year 10 (mean=4.2) but by the end of year 12 had returned to a stronger vertical faith (mean=5.839).

The Vertical Faith Dimension was significantly correlated with Christianity in the home and in the individual life of the student. Significant correlations include Christianity in the student (beta=65.3), the mother (beta=49.6) and father (beta=41.6) being Christian and previous Christian church worship experience (beta=52.4).

Horizontal Faith Dimension

On average, students reported a strong Horizontal Faith Dimension, although not quite as strong as the Vertical Faith Dimension. Students reported a mean of 3.84 (S.D.=1.04), with a median of 3.85, indicating their Horizontal Faith Dimension was leaning towards maturity in horizontal faith. Since 3.5 is the midpoint for this scale, this result indicated a moderate strength in students' Horizontal Faith Dimension. Frequencies for the Horizontal Faith Dimension were also negatively skewed, although not as strongly as for vertical faith. Almost 67% of students responded with a 4 or above (uncertain, but leaning towards agree or above). These results indicated that students generally reported a moderate amount of agreement with the horizontal faith belief statements, and hence a moderate amount of horizontal faith maturity.

Females (mean=4.1614) were also significantly (F=69.566, *df*=(1,762); p=0.0) stronger in the Horizontal Faith Dimension than males (mean=3.5576). Year 10 as a group again scored the lowest in the Horizontal Faith Dimension (mean=3.6414) which is just above the midpoint of 3.5. Year 7 and Year 12 remained roughly the same as the highest scorers by Year group (mean=4.0158, 4.0125 respectively).

The Horizontal Faith Dimension was significantly correlated with gender (beta=28.9), student Christianity (beta=28.1) and previous Church worship experience (beta=18.7).

Summary

This chapter has presented the results for the descriptive analysis performed upon the data collected using the questionnaire instrument. Descriptive statistics on the

background factors were discussed along with the results for the creation of the variable constructs. The themes in scale results were highlighted along with the ANOVA analysis and significant correlations.

In summary, results showed that students come from a wide base of past experiences to this study. Further, although both student planning of worship assembly and active, leadership-style participation in the worship assembly were low, attitudes to worship assembly were positive. Student faith maturity was positive, with vertical faith being the most mature dimension in students. Students also reported a positive Horizontal Faith Dimension, but it was not as strong as the Vertical Faith Dimension.

The next chapter presents the results of regression analysis, and the testing of the causal model.

Chapter 6

Causal Analyses

Introduction

The development of a causal model for examining relationships between variables is discussed in Chapter 3 and methodology for the causal analysis discussed in Chapter 4. This present chapter analyses data to test the strength of the proposed model. The model was applied to the data separately for each of the two outcome construct dimensions – vertical faith and horizontal faith – using multiple linear regression in two stages. Table 6.1 outlines the regression process with the dependent and independent variables at each stage of the regression analysis.

Table 6.1 Stages of Multiple Linear Regression Analysis.

Stage	Dependent Variable	Independent Variables
1.	**Outcome Variables** ▪ Vertical Faith Dimension ▪ Horizontal Faith Dimension	▪ Worship Planning Construct ▪ Active Leadership Participation Construct ▪ Attitudes towards Worship Assembly Construct ▪ Gender ▪ Age ▪ Year in school ▪ You a Christian? ▪ Mother a Christian? ▪ Father a Christian? ▪ Previous church worship experience ▪ Previous school worship experience
2.	**Intermediate Variables** ▪ Worship Planning ▪ Participation in Worship Assembly ▪ Attitudes towards Worship Assembly	▪ Gender ▪ Age ▪ Year in school ▪ You a Christian? ▪ Mother a Christian? ▪ Father a Christian? ▪ Previous church worship experience ▪ Previous school worship experience

The full model, with all paths and beta coefficients included, was complex (see Figure 6.3). For discussion purposes, the results of each analysis have been considered in turn. Appendix B details the standardised regression coefficients and standard errors of all significant paths in the full model.

Outcome Variable: Vertical Faith Dimension

The *Vertical Faith Dimension*[6] is one's personal relationship to God. This dimension might be called agentic or "love-of-God" faith. It involves a self and God encounter, including one's personal relationship to God, one's efforts to seek God and the personal transformation of experiences in this divine encounter. The results of the regression analysis with *Vertical Faith Dimension* as outcome variable are shown in Figure 6.1.

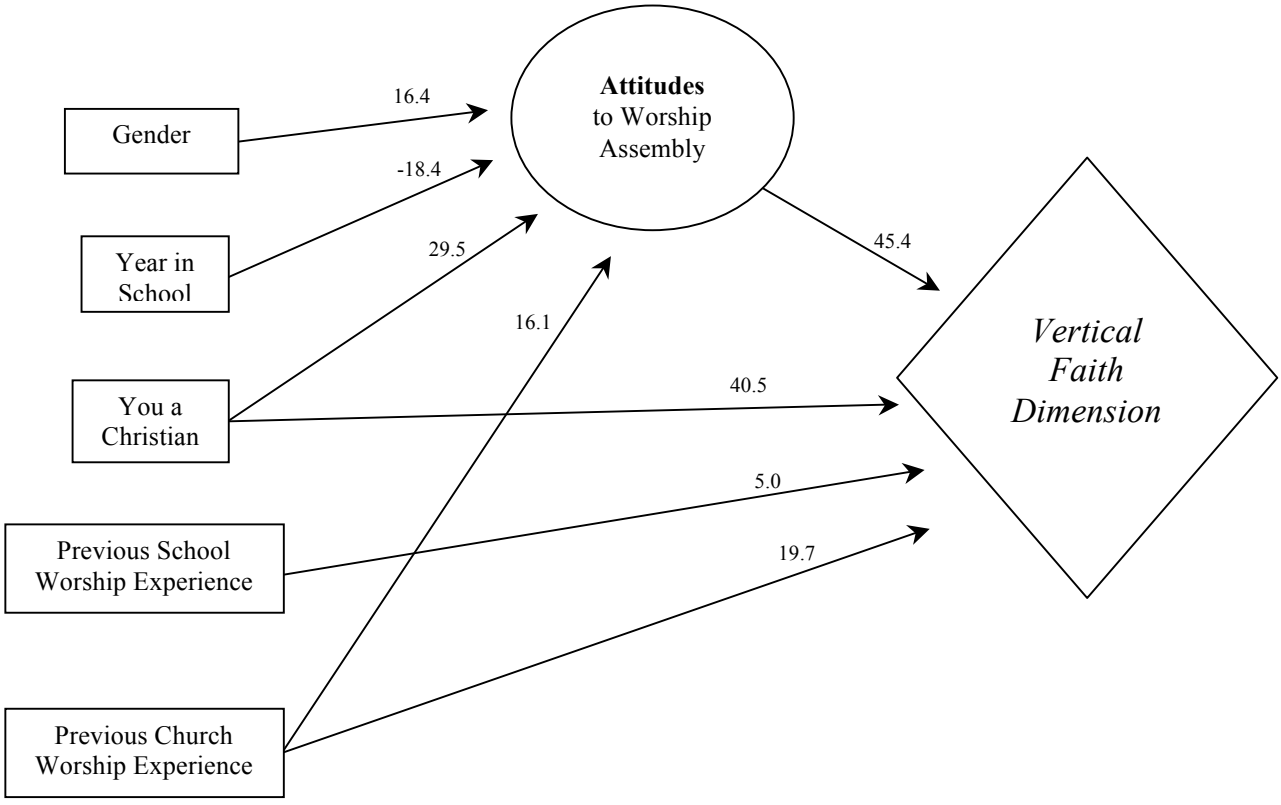


Figure 6.1 Model of Significant Causal Relationships with Vertical Faith as Outcome Variable ($p<0.05$, beta x 100, R^2 x 100 = 69.4).

[6] Where variable constructs and pathways are discussed, italicised have been used for ease of identification of pathways.

The causal analysis showed four direct positive paths leading to the outcome variable *Vertical Faith Dimension*. The largest of these positive path coefficients, from *Attitudes to Worship Assembly*, indicated that as students evidenced more positive attitudes towards worship assembly, their relationship with God was stronger (greater maturity). The variable *You a Christian* also had a direct positive link with the *Vertical Faith Dimension*. This meant students who consider themselves to be Christians have a high maturity of vertical faith. Students with previous school worship experience were more likely to experience a greater maturity of vertical faith, which was indicated by a positive coefficient between those two variables. A strong positive path was discovered between *Previous Church Worship Experience* and the *Vertical Faith Dimension*. The link was stronger than that between *previous school worship experience* and the *Vertical Faith Dimension*, indicating students with church worship experience experienced a stronger maturity of vertical faith.

As previously stated, *Attitudes to Worship Assembly* had a significantly strong positive relationship with the *Vertical Faith Dimension*. This meant that students with increasingly positive attitudes were more likely to experience higher degrees of the *Vertical Faith dimension*, thus a more mature relationship with God and commitment to Him.

Further, there were four indirect links from background variables through *Attitudes to Worship Assembly* to the *Vertical Faith Dimension*. The strongest of these four indirect relationships, *You a Christian*, was positively linked with *Attitudes to Worship Assembly*, and thus indirectly with *Vertical Faith Dimension*. It seems from this strong positive relationship that Christian students were more likely to possess positive attitudes towards high school worship assembly than non-Christian students, and in turn were more likely to have a stronger relationship with God. *Previous Church Worship Experience* also had a positive path to *Attitudes to Worship Assembly*. As students' church-based worship experience increased, they were more likely to exhibit positive attitudes towards worship assembly and consequently were more likely to have a strong relationship with God.

Gender and *Attitudes to Worship Assembly* were positively linked, which meant females were more likely to experience positive attitudes towards high school worship

assembly. The only variable in the regression analysis to evidence a negative pathway was *Year in School*, which had a negative path to *Attitudes to Worship Assembly*. This indicated students in higher year levels at school held less positive attitudes towards the worship assembly. It should be noted that although students in the higher grades reported less positive attitudes than students in lower grades, the mean for these attitudes remained above the midpoint of the scale, meaning their attitudes were still positive.

Active Leadership Participation or *Worship Planning* did not form a significant path to the *Vertical Faith Dimension*. One explanation for this could be the very low rate of student participation in worship assembly discovered in this study. This result suggests that in contrast to the suggestion of the literature, participation in worship assembly had no significant causal relationship with students' relationship with God in the present study.

Mother a Christian and *Father a Christian* were omitted from the causal analysis due to problems of co-linearity (Asher, 1983; Pedhazur, 1982) with the variable *You a Christian*. This co-linearity was suspected due to the high correlations (see Table 5.1) within these variables. Interestingly enough, the high correlations between *Mother* and *Father a Christian* and *You a Christian* may support the notion in the literature of the significant influence of family upon the faith of adolescent students.

Outcome Variable: Horizontal Faith Dimension

The *Horizontal Faith Dimension* involves obligation and action on the human plane, heeding the faith-calling to social justice, social responsibility and service. This dimension could be called horizontal, communal, or love-of-neighbour faith. The results of regression analysis with the *Horizontal Faith Dimension* as outcome variable are shown in Figure 6.2.

In many ways the model for the *Horizontal Faith Dimension* is similar to the model for the *Vertical Faith Dimension*. Four of the direct intermediate relationships (between background variables and attitudes) remained identical to those found for the *Vertical Faith Dimension*. This is because the two models did not diverge until

the final stages. Hence, *Gender*, *Year in School*, *You a Christian* and *Previous Church Worship Experience* all had direct paths leading to *Attitudes to Worship Assembly*. These links were discussed in the previous section titled "Outcome Variable: Vertical Faith Dimension". It should be noted, however, the link from *Attitudes to Worship Assembly* to the *Horizontal Faith Dimension* was stronger than the link to the *Vertical Faith Dimension* which can be seen in Figure 6.3.

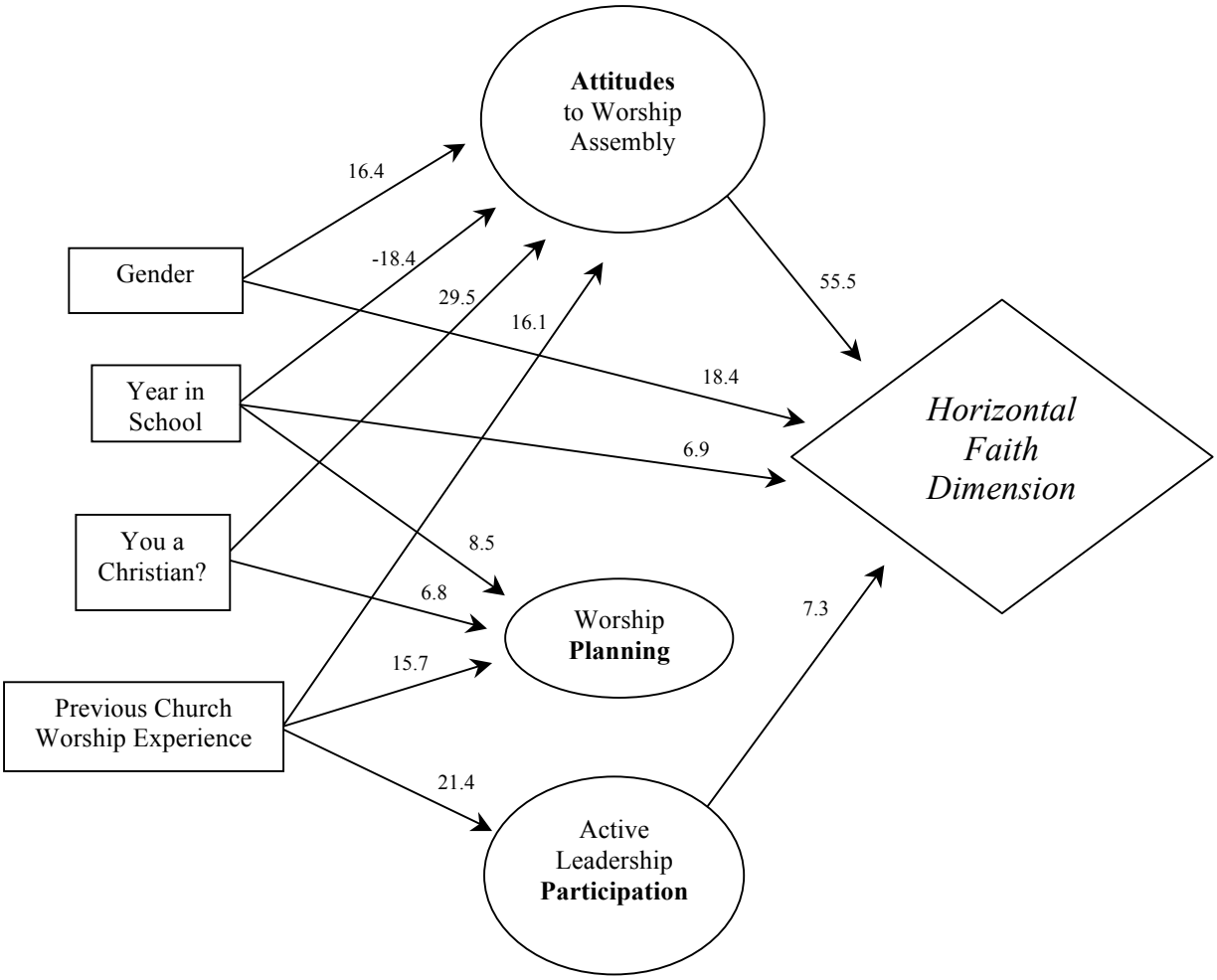


Figure 6.2 Model of Significant Causal Relationships with Horizontal Faith as Outcome Variable ($p<0.05$, beta x 100, R^2 x 100 = 39.7).

There were four direct paths to the *Horizontal Faith Dimension*. It is interesting to note that *Attitudes to Worship Assembly* had the most significant positive relationships leading from it in the causal analyses. This strong pathway from *Attitudes to Worship Assembly* to the *Horizontal Faith Dimension* indicated students with positive attitudes were likely to possess greater maturity in their horizontal faith. The *Horizontal Faith*

Dimension had a positive path leading to it from *Gender*, indicating females were more likely to evidence care and concern for fellow human beings. Students in the upper grades were also more likely to experience horizontal faith maturity, demonstrated by the positive direct pathway leading from *Year in School* to *Horizontal Faith Dimension*. Students who consider themselves Christian were once again more likely to experience a strong degree of care and concern for fellow human beings, as were those involved in active up-the-front participation. These positive relationships were demonstrated by positive path coefficients leading to the *Horizontal Faith Dimension* from *You a Christian* and *Active Leadership Participation*.

Significant paths were found from background variables to *Worship Planning* and *Active Leadership Participation*. Although *Worship Planning* had no direct link with either of the outcome variables, its inclusion in the model was due to the positive paths leading to it from *Year in School* and *Previous Church Worship Experience*. These results indicated that as students progress through to higher grade levels in school, their involvement in worship planning was likely to increase. Students with greater previous church worship experience were also more likely to be more involved in worship planning.

Previous Church Worship Experience had a strong positive pathway to *Active Leadership Participation*, which in turn was positively linked to the *Horizontal Faith Dimensio*n. These paths suggest that those students with greater amounts of previous church worship experience were more likely to be involved in active leadership participation. Students who were actively involved in leadership participation were more likely to evidence mature horizontal faith.

The absence of any significant direct or indirect link between the variables *Age* or *Worship Planning* and *Vertical* or *Horizontal Faith Dimensions* indicated that these variables did not have any significant influence in the present study. Perhaps the lack of student involvement in worship planning (reported in Chapter 5) helps explain the absence of a significant pathway between *Worship Planning* and either faith dimension. The lack of significant paths between *Age* and either faith dimension

suggests there is no significant maturation of either vertical or horizontal faith as age increases.

Summary of Causal Relationships

This chapter has explored the significant relationships between variables as a result of the two stage multiple regression analysis. Figure 6.3 is a distillation of Figures 6.1 and 6.2 into a full model illustrating all significant positive and negative relationships produced in the multiple regression analyses.

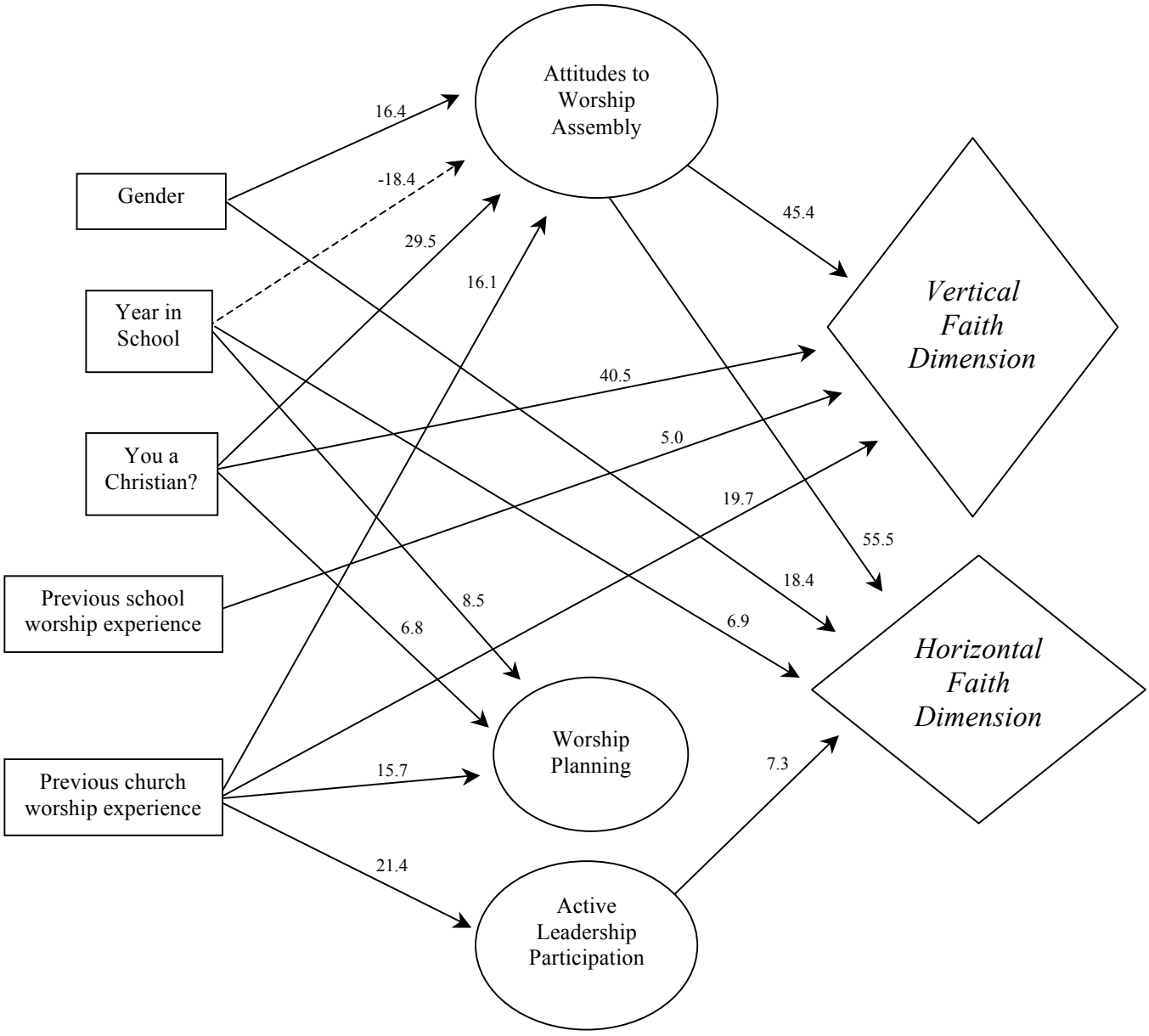


Figure 6.3 Full Model of All Significant Causal Relationships ($p<0.05$, beta x 100)

Dimensions of faith maturity in high school students were significantly influenced by a number of factors. Students with positive attitudes to worship assembly were more likely to evidence maturity in relationship with God (vertical faith) and care and concern for others (horizontal faith). The positive causal relationships between attitudes and both dimensions of faith were the strongest found in the causal model.

Further, there were 4 indirect pathways through attitudes to both vertical and horizontal faith. Being a female, being a Christian and having previous church worship experience led to the holding of positive attitudes toward worship assembly which in turn led students to have a mature vertical and horizontal faith. Students in the upper years of high school were more likely hold less positive attitudes towards the worship assembly.

The *Vertical Faith Dimension* of students had three other direct paths leading to it, from *You a Christian*, *Previous School Worship Experience* and *Previous Church Worship Experience*. These results indicate that Christian students with worship experience were likely to exhibit a mature relationship with God (vertical faith).

The *Horizontal Faith Dimension* also had three other direct paths leading to it from *Gender*, *Year in School* and *Active Leadership Participation*. Females, therefore, were more likely to have an active interest in social justice and service to mankind (horizontal faith). Students in the upper years of high school were also more inclined to have a mature degree of interest in fellow human beings (horizontal faith). A mature horizontal faith seemed to be influenced by students involvement in active leadership participation also.

Students with greater previous church worship experience were more inclined to participate actively in the high school worship assembly, which led in turn to maturity of horizontal faith. Students were also more likely to be involved in the planning and coordinating element of worship assembly if they held previous church worship experiences. When students considered themselves a Christian or were in the upper years of high school, they tended to be more involved in the planning of worship.

Response to the Research Questions

We now turn our attention to the five general research questions proposed in Chapter 3. Results for the measures and for the causal relationships between each variable are detailed in Chapters 5 and 6. Information used here to answer the research questions has been reorganised from previous chapters for the convenience of the reader.

1. **What degree of faith maturity exists in high school students?**

The Faith Dimensions Scale produced in this study demonstrates that students do in fact possess maturity of faith. Students scored well above the midpoints on the Faith Dimensions Scale, indicating that on average, they possess mature faith. Students scored higher on the Vertical Faith Dimension Scale than they did on the Horizontal Faith Dimension Scale. These results indicate that high school students have a relatively strong degree of maturity in their faith experiences. This is particularly true for year 7 students indicating students who have a strong relationship with God, belief in Him, commitment to Him and willingness to be pro-active in promoting and fostering personal relationships with a loving God.

Also mature, but to a moderately high degree, is student horizontal faith. Students exhibit positive signs in their responses that they are committed to service to fellow mankind. Where possible, students indicate they will go out of their way to show love to others, to do something about reducing poverty in the world, to promote world peace and reduce pain and suffering around them. That horizontal faith was reported lower on the scales than vertical faith may suggest that students are more interested in relationship with God, and commitment to Him than in service and action on the human plane.

Students therefore exhibit a mature degree of vertical faith, and a moderate degree of horizontal faith. Year 10 students seem to exhibit the least faith maturity in both dimensions of all the year groups. Conversely, year 7 students show the greatest

maturity of faith of the high school year groups. Females are more likely than males to have faith maturity in both dimensions.

2. **What is the level of student involvement in planning and participation in worship assembly, and to what extent are student dimensions of faith maturity influenced by planning and participation in worship assembly?**

In the present study, two scales were used to measure student participation in worship assembly: the Worship Planning Scale and the Active Leadership Participation Scale. Students evidenced a very low level of involvement in either the planning element of worship assembly or active leadership style participation. This result suggests there are factors at work causing students to not participate, as is evidenced by very low participation rates.

No significant relationship was found to exist between worship planning and either of vertical or horizontal faith. This finding is surprising in the light that worship planning correlated strongly with both vertical and horizontal faith (see Table 5.1). Interpreted, these results suggest student worship planners of the high school worship assembly are not necessarily more mature in either their vertical or horizontal faith experience.

A significant relationship was found between active leadership participation and the horizontal faith dimension. This would indicate that on average students who participate in active, up-the-front-style leadership participation activities are more likely to experience maturity of horizontal faith. Perhaps the extent of this relationship can be explained due to the similarity between this involvement and activity and involvement of faith on the horizontal plane of service for humanity. Both involve sacrifice of time and energy for others. Conversely, the absence of any significant influence of participation on vertical faith would suggest students who actively participate do not necessarily experience a mature relationship with God.

In summary, few students were involved in participation and planning in the worship assembly. Students who actively participate in worship possess a mature horizontal

faith dimension, however students who are involved in the planning of worship do not necessarily experience faith maturity in either dimensions.

3. **What are student attitudes to worship assembly, and to what extent are the student dimensions of faith maturity influenced by attitudes to worship assembly?**

Student attitudes to worship assembly were measured using an instrument developed in this study, as discussed previously in Chapter 5. This measure indicated students, on average, were positive in their attitudes to worship assembly.

The study found students with positive attitudes to worship assembly in the high school were likely to experience faith maturity in both dimensions. The most significant positive influence discovered in the study was in fact between attitudes towards worship assembly and horizontal faith. This is a result suggesting students with positive attitudes to worship assembly in the high school have a higher horizontal faith maturity.

There were significant differences in attitude between students in the study. Students in school 3 possessed the most positive attitudes towards worship assembly. On the basis of informal observation of the worship assembly in each school, this finding would seem to be an accurate result. Females and students from junior schooling years (years 7 – 9) have more positive attitudes to the worship assembly. Perhaps this result is due to the natural inclination of females toward the public expression of personal spiritual affections. In regards to year in school difference, students in the junior years may seem to be enjoying the freshness of high school worship assembly. Speculating further, junior school students may have even reported positive attitudes with abandon in the questionnaire, and may not yet have been given the chance to become attitudinally resistant or cautious in regard to high school worship attitudes.

The study shows students on average possess positive attitudes towards high school worship assembly, and these attitudes have a significant positive influence on the vertical and horizontal faith maturity of high school students.

4. **What background factors significantly influence the faith dimensions of high school students?**

Students come to the high school worship assembly context with a range of background experiences. The relationships between these background factors and the vertical and horizontal dimensions of faith will be considered in turn.

Vertical Faith Maturity

The study recognises five background factors as being significant direct or indirect influences on vertical faith maturity in high school students. Females are more likely than males to have positive attitudes towards worship assembly, which in turn leads them to have a strong relationship with God and commitment to Him (vertical faith maturity). Students who are Christians are also more likely to evidence vertical faith maturity. This is a logical result which can be partly explained with the Christian influence in the Faith Dimensions Scale used to measure faith maturity. Students in the upper years of high school possess increasingly less-positive attitudes towards worship assembly, which influences in turn the vertical faith maturity of students.

Of particular significance to the impetus for this study was the relationship between previous worship experience and faith maturity. The study found students with previous school and church worship experiences tend to have a greater maturity of vertical faith. Worship in high school does in fact play a role in enhancing students' relationship with a loving God.

Horizontal Faith Maturity

The same five background factors recognised for vertical faith maturity are significantly related either directly or indirectly with horizontal faith maturity in high school students. The most significant relationship discovered was in fact between attitudes and horizontal faith maturity. Positive attitudes to worship assembly are

crucial in the development of faith maturity in high school students, particularly faith relating to service for others. Students involved in active participation in the worship assembly have a greater tendency to possess mature horizontal faith. Further, females are more likely than males to show interest in care and concern for fellow human beings around them (horizontal faith). Senior school students (years 10 – 12) are more likely than junior school students to show love, care and concern to other human beings on the horizontal plane of faith maturity. Perhaps this is due in part to the possible increased social confidence of older adolescents to report their Christian affections for others and to publicly display concern for others.

Students with previous church worship experience are more likely to both a) possess more positive attitudes towards worship assembly, and b) be more involved in active leadership participation in the high school worship assembly. Consequently, these students are more likely to take interest in fellow humans around them through action, commitment and relationship on the horizontal plane of faith maturity. Further, the study shows as worship experience in churches increases, active leadership involvement in high school worship increases and so too does horizontal faith maturity.

Students with previous school worship experience are not necessarily mature in the horizontal faith dimension. The absence of the influence of age on either of the faith dimensions suggests students do not necessarily mature in their faith through changes in age. Challenging this result is the finding that as a student progresses through the years in high school, in their senior years they experience a stronger horizontal faith dimension (as discussed previously).

5. **To what extent are student background factors related to student worship planning, active leadership participation, and attitudes towards the worship assembly?**

Worship planning, active leadership participation and attitudes are important aspects of student experience in high school worship assembly. A number of background factors are significantly causally related to these aspects of worship assembly.

Gender

No significant relationship is distinguishable between gender and worship planning or active leadership participation, however females possess more positive attitudes towards worship assembly than males and consequently have a more robust horizontal faith maturity. One wonders if males in the study were hesitant to declare positive attitudes, or if they were genuinely not as strong as the females in the matter of positive attitudes to worship assembly.

Year in School

Students in the upper years of high school are more likely to be involved in the worship planning aspects of high school worship assembly. This result is not surprising as students in higher grades are offered more responsible in-school roles as they progress through high school. Students in year 7 and in year 12 are the most active in leadership participation in worship assembly.

Students in the upper years of high school possess less positive attitudes towards high school worship assembly. To speculate the exact meaning of this result is difficult. One explanation suggests by the end of high schooling, students are becoming weary of the compulsory nature of high school worship assembly, and also more cautious and critical in matters of worship and faith. This may result in less positive, even negative attitudes towards worship assembly as shown in student responses to question 35 in the research instrument questionnaire (See Appendix A.5). Two senior high school students responded with the following statements:

> (Year 11 student) "I would make worship assembly not compulsory, so that I don't waste my time".
>
> (Year 12 student) "Assembly should not be treated like a compulsory chore, but rather more like an option we're happy to participate in".

This is not to say that no senior students evidenced positive attitudes towards worship assembly. Other students had the following positive reactions to worship assembly:

> (Year 10 student) "I generally like worship assemblies. They are very interesting and challenge my thoughts."
>
> (Year 11 student) "I feel that worship assembly is great the way it is and don't feel it needs to be changed.

However, the majority of statements demonstrated at the individual level the more general negative relationship between year in school and attitudes towards worship assembly discovered in quantitative analyses. As year in school increases, attitudes towards worship assembly become less positive.

Student Christianity

Where students consider themselves a Christian, there is no significant direct relationship with horizontal faith maturity. This relationship is also difficult to explain. A major premise of the Christian faith is the enaction of faith on the horizontal plane. Jesus Christ mentioned the horizontal emphasis of "love your neighbour" faith continuously in his journey of faith. The absence suggests Christian students are not as interested in service and action on the horizontal plane as they are in relationship with God (vertical faith). This conclusion is with the exception that where students consider themselves Christians, they experience positive attitudes to worship assembly which in turn leads to maturity of horizontal "love of neighbour" type faith.

That Christian students are likely to hold positive attitudes towards a Christian high school worship assembly is not surprising. A stated and deliberate focus of Christian education is to foster positive attitudes towards Christianity and the Christ-centred activities of the school (SPD, 2000). Schools in the study should feel confident that they are succeeding in this goal.

Previous Church Worship Experience

Previous church worship experience has positive relationships with worship planning, active leadership participation, and attitudes to worship assembly. The study suggests where student church worship experience increases, so too does involvement in worship planning and active leadership participation increase. This result is logical in that exposure to and experience with the mechanisms of Christian church worship should and does influence student involvement in the mechanics of planning and actively leading in high school worship experiences.

Previous church worship experience was also found to be positively related to student attitudes towards worship assembly, indicating that exposure to previous church worship experiences positively enhances student attitudes towards the high school worship assembly.

Unrelated Background Factors

Some background factors did not show significant causal relationship with either intermediate or outcome variables. They will be discussed in turn.

Previous School Worship Experience

The previous school worship experience of students was not found to be significantly related with worship planning, active leadership participation or attitudes to worship assembly, indicating that previous worship assembly does not bring much to bear on student involvement in planning, participation or student attitudes.

Age

Also, the present study finds that student worship planning, active leadership participation and attitudes to worship assembly are not age-related. Students of all ages in general seem to participate in, plan for and have positive attitudes towards the high school worship assembly.

Summary

From the data, all research questions were answered.

In summary, students possess faith maturity in two dimensions. Students have a high degree of maturity of vertical faith and a moderately high degree of horizontal faith maturity. This result suggests students have a healthy relationship with and to God, and also remain interested in the outplay of this relationship with their fellow mankind through action and service on the horizontal plane.

Students were found to exhibit very little involvement in worship planning and active leadership participation within their high school worship assemblies. Those who did participate were more likely to experience strong horizontal faith.

Students indicated on average positive attitudes towards high school worship assembly. These attitudes had a strong significant positive relationship with faith in both vertical and horizontal dimensions. Student attitudes towards worship assembly were found to be the most significant positive factor influencing faith dimensions.

Student responses indicated four background factors as being positive influences either directly or indirectly on both vertical and horizontal faith. These factors included: gender, year in school, student Christianity, previous school worship experience and previous church worship experience.

Senior school students and those with greater previous church worship experience were more likely to be involved in worship planning. Active leadership participants in the high school were most likely to be those with a greater amount of previous church worship experience. Female and Christian students with previous church worship experience were most likely to exhibit positive attitudes towards the worship assembly, while upper grade level students were most likely to exhibit less-positive attitudes towards the high school worship assembly.

Chapter 7

Discussion and Conclusion

Introduction

This study investigated the faith producing dynamics in operation in high school worship assembly. Specifically, the study examined the relationships between background factors, worship participation, attitudes towards worship and the maturing of student faith experience.

The previous chapters have presented the theoretical basis for the study, described the methodology of the study, presented a descriptive and causal analysis of the data, and responded directly to the research questions. The present chapter seeks to summarise and conclude this thesis by discussing an overview of the findings and drawing comparisons to previous study findings. The study's limitations are discussed and consideration given to the implications of the study and future research which would extend the scope of the present study.

Discussion of Results

The present study discovered students possess faith maturity in the two dimensions of vertical and horizontal faith. Students have a high degree of maturity of vertical faith and a moderately high degree of horizontal faith maturity. This result suggests students have a healthy relationship with and to God, and also remain interested in the outworkings of this relationship with their fellow mankind through action and service on the horizontal plane.

Dudley & Gillespie (1992) discovered 43% of the youth surveyed had an underdeveloped, immature faith. The findings of the present study contrast with this finding by supporting the notion that a majority of students in the study possess a

mature relationship with God and with their fellow mankind. On the horizontal scale, however, Australian high school students in the present study demonstrated moderately mature faith in relation to fellow mankind through service and compassion.

Like the findings of Hughes (1993), Gane (1997) and Strahan (1994) the present study suggests females are more likely to possess faith maturity and spiritual sensitivity than males.

Results from the present study echo those of Steinberg (1985) who said that younger adolescents demonstrate a more religious nature than late adolescents. In part, present findings are at odds with faith development theory which suggests faith matures with age. At least in the adolescent periods that forms the content of the present study, faith maturity declines between ages 13 and 18. Also, the present study indicates year 7 students scored more highly on their vertical faith dimension and somewhat more highly on the horizontal faith dimension than senior school students. While the intention of the present study was not to examine religiosity, the findings do highlight an age influence in faith maturity.

These results should not be surprising, in that late adolescent individuals are beginning the process of challenging, investigating, accepting and rejecting the faith perspectives of parents, teachers and significant others by being cautious towards faith. It would seem logical therefore, that late adolescents also possess less positive attitudes towards the worship assembly which is a venue set up to aid in faith development. Less positive attitudes in late adolescents can be seen in this context as a normal part of the faithing process.

In the present study, students were found to exhibit very little involvement in worship planning and active leadership participation within their high school worship assemblies. Those who did participate were more likely to experience strong horizontal faith.

Other studies have detected the lack of worship participation of high school-aged individuals. Dudley & Gillespie (1992) pinpointed a distinctive lack of participation

of adolescents in church worship services and in the life of the school religious education program. Chavez (1994) called for an increase in the participation of adolescents in worship to counter this lack. Although many faith development and worship scholars theorise the direct links between worship participation and faith maturity (Dudley & Gillespie, 1992; Hughes, 1993; Gane, 1997; Parks, 1986; Webber, 1992, 1999; Westerhoff, 1987; Whaley, 2001; Youlden, 1988), there remains a distinctive lack of participation in the high school worship programs of the Adventist Christian school.

The connection discovered between participation and horizontal faith does provide a partial basis from which to claim participation effects faith. The strength of the link is tenuous however, which could partly be explained by the lack of participation rates as measured by the Active Participation scale. Perhaps the participating students considered as a group in their own right under a similar causal analysis may show differing results. This is certainly an area in need of further research.

Students in the present study indicated on average positive attitudes towards high school worship assembly. These attitudes had a strong significant positive relationship with faith in both vertical and horizontal dimensions. Student attitudes towards worship assembly were found to be the most significant positive factor influencing faith dimensions.

Benson (1992) and Grieser (2000) both concluded that positive attitudes towards religious programming will promote the development of faith in high school students. These attitudes and the subsequent faith implications will reach long into the future (Grieser, 2000). The present study confirms the direct causal relationship between attitudes and both vertical and horizontal faith maturity.

A fair question to consider however, is the possibility that a mature relationship with God and a healthy consideration for the needs of fellow mankind could in themselves bring about the existence of positive attitudes towards worship in either a) the high school worship assembly context, or b) the church worship context. The present study examines the causal relationship from the perspective of attitudes influencing faith due to that emphasis in the theoretical discussion (Benson, 1992; Grieser, 2000).

However, there remains the future opportunity for examining these factors as being involved in a recursive relationship.

In the present study, student responses indicated student Christianity, previous school worship experience and previous church worship experiences as being influential in the maturing of faith.

This result shows as student worship experience (in both school and church) increases, so does faith maturity in terms of the vertical, relationship with God dimension. Worship experience has been found to impact faith in previous studies (Benson, 1992; Dudley & Gillespie, 1992; Fischer, 1986; Maynard, Gorsuch & Bjorck, 2001 et al.). However, the present finding in the high school worship assembly context should be encouraging for educators and administrators in Christian schools. They should feel encouraged that efforts to promote faith maturity through high school worship assembly are actually producing fruitful results in students. The challenge does remain, however, to see the active involvement of students increase (Chavez, 1994).

Faith development studies suggest the school has opportunities for impacting the faith maturity of its student constituents (Dudley & Gillespie, 1992; Hughes, 1993; Gane, 1997; Youlden, 1988). The present study on faith development stands beside these studies in suggesting that worship assembly can and does play a significant role in producing faith maturity in high school students. The need for further research into exact nature of this relationship is needed (Chavez, 1994; Gane, 1997). The better we understand the role worship assembly plays in the faith maturity of students, the more prepared we will be as educators to facilitate students who so desire into a relationship with God.

Limitations of the Study

The growth of mature faith in high school students is a dynamic and complex system of influences. The outcomes under investigation in the present study have been shown to be complex and interrelated. Given the small size of the student sample and the inherent limitations of the instruments used, investigating all possible

relationships was impossible. Yet adequate evidence was found to make suggestions to educators and students regarding high school worship assembly and the development of mature faith in students.

Recognising inherent limitations in research is important as it aids in the application of significant findings of that research. The research limitations in the present study will be considered further in terms of research instrument, student sample and causal modelling methodologies.

Research Instrument

The study relied on questionnaires, informal observations and informal key-informant interviews to gather information about background factors, worship assembly factors and faith maturity factors in students. The present study has a number of limitations which seem to be consistent with cross-sectional questionnaire research designs (Anderson & Arsenault, 1998).

First, the data gathered presents students' own views of their attitudes and behaviours. There is little that can be done to test whether these perceptions represent idealistic views or the actual reality of the situation.

Second, in that the researcher was familiar with a limited number of students under investigation, the possibility for social response bias existed. The administration of the questionnaire independent of the researcher in Schools 2 and 3 may have reduced this influence.

While it is unlikely that student perceptions will change rapidly, the reliance on cross-sectional survey to produce measures of variables was a limiting factor.

Student Sample

The student sample in this study involved high school students in years 7 through 12 from three high schools. Often, studies of this kind portray high school students as a homogenous group of individuals. Quantitative analysis of these data sets face validity and reliability challenges where sub-populations and sub-units of analysis are

unspecified or unclear. Differences in the time frame, administration of worship assembly, school cultural "feel" of worship and opportunities for participation in each of the school worship assemblies were identified in the present study. These differences must be acknowledged as a limitation to the methodological approach to the study.

However, the study did define the sub-populations of the sample by providing comparisons in the data between gender, school and year in school. These distinctions should provide a reasonable understanding of significant differences and the extent to which findings can be generalised between schools.

Causal Model Methodologies

The present study proposed a causal model based on both theoretical premise and conceptual relationships (see Chapter 3). In a discussion on causal modelling, Beamish (1998:101-102) discussed how proposed causal models must be linked to theoretical premise. The reliance at times on conceptual relationships should be recognised as a potential limitation to the inferences which can be drawn from the present study.

Also, the present model has aimed to empirically pinpoint the dynamics influencing faith development in high school students, and to identify the specific roles that worship participation and attitudes towards worship play in the maturing of student faith. This process is dynamic and complex. Critics of causal modelling identify the potential oversimplification of extremely complex situations (Keeves, 1988). It is feasible to consider the present model analyses a complex faithing system at work in students, which could represent a limitation.

However, the present study's causal model methodology, based on both theoretical premise and logical conceptual relationships, does provide an enhanced understanding of the dynamics at work in the faith maturation of high school students. The relationships discovered are significant. Of greater consequence, their theoretical basis suggests these relationships may exist not just in the interrelationships of

statistical data sets, but in the faithing behaviours and experiences of high school students.

The researcher suggests the reader use appropriate tentativeness in interpreting conclusions, and that additional study and investigation be made to strengthen the scope and findings of the present investigation.

Implications for Christian Education

Faith development involves changes (Fowler, 1981). Education is by nature a process of growth, which means change (Hill, 2001). It would seem that teachers and school administrators are placed in a context in which change is natural and expected. A school, then, is an ideal place for the heightened awareness of the dynamics at work in the faith maturation of high school students. Although faith development of students is a complex process, the present study has discovered that high school worship assembly does in fact play a role in the development of the faith of students. In particular, student attitudes and participation have implications for teachers and schools.

Educators should take note that positive attitudes towards worship assembly are in fact a major causal factor in determining both relationship with God and in promoting responsibility for service and social justice in students. One implication of this relationship is that teachers find opportunities to develop positive attitudes in students, particularly male students who deserve the opportunity to both a) develop positive attitudes and, b) experience faith with as much vibrancy and enthusiasm as their female co-students have been presently shown to experience. This could be achieved through the inclusion of students in planning for worship, so that it remains enjoyable, student-focussed, and thoroughly relevant to the students for whom worship assembly should be directed. High school chaplains should remain aware at all times of the climate of attitudes in school worship assembly, so as to maximise the effect that worship can have on the faith maturity of students.

Student participation in worship assembly is extremely low. This result implies the need for chaplains and teachers to encourage the involvement of students in worship

large and small ways. Consequently, teachers may find students experiencing faith growth due to their interaction with other peers and the frequent interaction with God. Further, increased student participation in worship could increase the ownership of the worship event as the students' own (Rice & Gillespie, 1992). This is an important step in the growth of authentic faith. Authentic faith is owned by the individual who choses to have it, and is not a property of the system which attempts to foster faith (Fowler, 1981). Participation in the event of worship may lead students to such an ownership.

The developing faith of students is but one area in which change and growth occurs. Hill (2001) stresses the significant need to develop new strategies for inclusion of students in the growth of faith. As students, educators and researchers alike come to terms with the meaning and calling of our faith, perhaps we will see the emergence of new pictures of faith growth to both challenge and compliment those already in existence. The better we as educators understand the dynamic set of matrices at work in student faith, the more equipped we will be in playing our role as facilitators of learning and faithing processes. The present study has highlighted the complexity of the faithing process. Thus, an implication for the present finding is the need for further research into worship assembly and its influence in the dynamics of faith of high school students.

The results that suggest females exhibit more positive attitudes towards worship assembly, and also exhibit a stronger maturity of relational, service-oriented faith (horizontal dimension) is a powerful testimony to the giftedness of females for worship and ministry positions both in the high school worship assembly context and through post-high school years. The need for further affirmation of these gifts in females, and the encouragement of males in these areas is an implication of the present findings.

Finally it is hoped that the findings of this research will result in positive changes to student worship experiences, particularly those relating to participation in worship assembly. Perhaps the implementation of such change is for the good of the students who in Christian schools are even now developing their faith.

Suggested Further Research

The present study concerns student participation in and attitudes towards high school worship assembly in relation to faith maturity. Further research in a number of areas may extend and strengthen the present findings.

First, while quantitative research such as the present study is helpful in initially exploring relationships between variables, further qualitative research into the complex and subjective area of faith and worship assembly would provide additional, less general, more specific findings to strengthen or refute present findings. Qualitative forms of inquiry could explore phenomena in their natural settings and bring richer meaning to the hypothesised relationships through personal observation and interview techniques.

Second, the nature of the relationship between participation in worship assembly and attitudes to worship assembly is an area needing further investigation. The need arises due to the unclear present understanding as to which of these causes the other – participation causes positive attitudes, or positive attitudes result in greater participation?. The nature of this relationship warrants further research.

Another further research possibility exists in relation to the causal model. The current model could be cross-validated using new student populations of other Christian schools. The causal analysis suggested unknown factors from outside of the model influenced the outcome variables examined (vertical and horizontal faith). A search of the literature identified the variables included in the present model. Further research may consider the influence of factors such as peer pressure, teacher involvement and attitudes, administrative support, venue and other worship assembly factors upon student faith maturity.

It was the intention of this study to examine the causal model using a student participant only sub-group of the sample. Future research into this area may supply a more accurate conclusion regarding the exact nature of the relationship between worship participation and faith maturity. At present, due to the extremely low rates of student participation, the nature of the relationship remains under-identified. Future

research may identify the forces at working causing students not to participate in high school worship assembly.

These avenues of future research may provide a rich body of data to increase understanding of student faith maturation in relation to high school worship assembly.

Conclusion

The faith experiences of the students in Christian high schools has the potential to be influenced by the quality of religious programming in that school, particularly the high school worship assembly. This study has shown that student attitudes play a major role in the formation of a student's relationship with God, and in the outplay of this relationship with other human beings. It is the conclusion of this research endeavour that we as teachers seek to further understand the influences on faith experience in our students so that we can move closer to arriving at one of our essential goals (SPD, 2000): to facilitate student encounters with a loving God.

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Appendix A

Data Collection

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Appendix A.1

Letter to Principals

Monday, 9 April 2001

Dear High School Principal,

I am a 4th year honours student conducting research into the spirituality of high school students. The study investigates the attitudes and participation of students in high school worship assembly and how this relates to their perceived spirituality.

I would like for the students in your high school to form part of the sample group for this investigation.

I am researching the perceptions of the full range of high school years: from year 7 through to year 12. The main bulk of the data collection is to take place in the form of a four-page questionnaire (please see the attached copy). The questions are designed to draw out student attitudes and perceptions relating to worship and spirituality. The questionnaire does not take very long to complete. If at all possible I would love for the students to fill these out during Bible classes, as the possibilities for fostering interest in the questionnaire and its completion at other times seems limited.

Anything the students reveal about their experiences will be treated with utmost confidence to preserve anonymity. The study has the approval of the Education Department at Avondale College, and I am including an attached copy of that approval. I am also including a copy of the questionnaire to be viewed at your leisure.

If you would like any further information about the project, please feel free to contact me or my supervisor using the following avenues:

Leighton Heise	Dr. Peter Beamish
02 4977 2606	02 4980 2190
0412 866 730	0416 031 793
	02 4980 2190 (fax)
cosmicgroove@hotmail.com	peter.beamish@avondale.edu.au.

I am hopeful that you will give permission for this study to proceed in your high school. Thank you for considering this matter.

With a smile,

Leighton Heise
Honours Researcher, Avondale College

Countersigned,

Dr. Peter Beamish
Dean, Faculty of Education, Avondale College

Appendix A.2

Key Informant Informal Interview Script

Worship Assembly Profile

- On what day does worship assembly occur?
- How long does it go for?
- Please describe the venue for worship assembly.
- What does a typical worship assembly program in your school involve?
- What are the trends in worship so far this year?
- What are you planning for the rest of the term?
- Can you give 4 or 5 examples of worship experiences which were either successful or unsuccessful? Why?
- What features are the most popular in terms of student response in the worship assembly?

Participation and Attitudes Profile

- In your opinion, what are the most influential factors influencing student participation in worship assembly?
- In your opinion, what level of participation and involvement do students typically evidence?
- Is there a particular corporate "attitude" towards worship which you can describe?
- What kinds of attitudes particularly impact upon the faith development of students?
- What is the single-most participated-in feature of worship assembly? Why do you think it encourages the most participation?
- Do you have to work hard to encourage participation (of an active up-the-front kind, or of the audience participation kind)?
- What opportunities are there for students to be involved in planning and organising before the assembly takes place?

Other Questions

- Do you think participation has a bearing on the faith experiences of the students?
- Do you have a week of spiritual emphasis?
- What happens to participation during week of spiritual emphasis? (maintained, decreases, increases)
- Is there commitment from colleagues in regard to making things happen, supporting the worship assembly?
- Upon what does the worship "atmosphere" or "group ethos" depend each week?

Appendix A.3

Consent Cover Letter

Worship Assembly

Dear Student,

Thank you for participating in this research project. The project will be looking at the way in which your participation in worship assembly contributes to your spiritual experience.

Here is some helpful information before you begin:

- Filling in the questionnaire indicates your consent for the information to be used in this research project.
- Be assured that anything revealed in your answers will remain strictly confidential.
- Only the researcher and his immediate supervisors will have access to the data.
- The questionnaire IS NOT A TRICK! It is not a code that you have to crack, there are no "RIGHT ANSWERS" – all you need to do is *answer honestly*.
- This research project has been approved by the Avondale College Human Research Ethics Committee (HREC). Avondale College requires that all participants are informed that if they have any complaint concerning the manner in which a research project is conducted it may be given to the researcher, or if an independent person is preferred, to the College's HREC Secretary, Avondale College, PO Box 19, Cooranbong, NSW, 2265 or phone (02) 4980 2161 or fax (02) 4980 2190.

Thanks again for your efforts in answering each question with complete honesty. You are making an important contribution to this project.

With a smile,

Leighton Heise.
Honours Student, Avondale College.

Appendix A.4

The introductory script delivered
when researcher not present at data collection

Introductory Script

Dear Teacher,

Thank you for helping in this research endeavour.

The following script includes introductory information which puts the questionnaire into context. This information should be helpful in defining the key terms and direction of the questionnaire for the students.

Could you please make the students aware of the following information before they begin filling in the questionnaire?

Key Terms

Assembly — This refers to the period of time set aside in *your school* for corporate worship time. It is not your home church worship service. This term [and the whole of this questionnaire, save Question 10] refers to your attitudes towards your *school worship assembly*.

Worship — Focussing on God and what he has done / is doing in your life and the lives of others. Worship can be both group and personal in the high school situation. This questionnaire refers to your group worship during your assembly period.

Instructions to the Students

1. Answer each question as you see it now, not as you would like to see things in an ideal world. Try to be as real to your **PRESENT** experience as possible.
2. Answering as honestly as possible will be the best help for research purposes. The questionnaire is not a trick code with correct answers. Honesty is the best approach!
3. Everything revealed will be kept strictly confidential by the researcher
4. Only the researcher and his immediate supervisors will have access to the data.
5. Filling in the questionnaire indicates your consent for its use in research.

Thank you for your assistance,

Leighton Heise
Honours Student, Avondale College

Appendix A.5

Questionnaire

WORSHIP

ABOUT YOU

(please tick one box per question)

1. In what year are you studying at school?

Year 7		Year 10	
Year 8		Year 11	
Year 9		Year 12	

2. What class are you in?
(e.g., Year 10A, or Year 7C) _____

3. What is your gender?

Male		Female	

4. How old are you?

11 or younger		15	
12		16	
13		17	
14		18 or older	

5. Is your *FATHER* a Christian?

Yes		No	

6. Is your *MOTHER* a Christian?

Yes		No	

7. Are *YOU* a Christian?

Yes		No	

8. If you *ARE* a Christian, which church group are you associated with?

Anglican		Lutheran	
Roman Catholic		Presbyterian	
Seventh-day Adventist		Baptist	
Uniting Church		Pentecostal	
Christian Life Centre		Assemblies of God	
Other (please list below) _____			

9. If you are *NOT* a Christian, which religious group are you associated with?

Islam	
Hinduism	
Buddhism	
Hare Krishna	
No religious group	
Not applicable (I'm a Christian)	
Other (please list bellow) _____	

PREVIOUS WORSHIP EXPERIENCE

(please tick ONE box per question)

10. How often do you currently attend Christian *CHURCH* worship services including any gathering where you worship together? (eg. Church services, vespers, youth meetings, cell groups etc.)

More than once a week.	
Once a week.	
Once every 2 weeks.	
Once every 3 weeks.	
Once a month.	
2 or 3 times a year.	
Once a year.	
Never.	

11. For how many years have you been attending a school (primary or high school) that provides a worship assembly period during school time?

1 Year		7 Years	
2 Years		8 Years	
3 Years		9 Years	
4 Years		10 Years	
5 Years		11 Years	
6 Years		12 Years +	

WORSHIP PARTICIPATION OVERVIEW

12. Rank on the scale the level of interest, energy and involvement that you have in the worship assembly as an overview.

(Circle ONE number only)

Your level of involvement in worship				
Small Level of involvement				Large Level of involvement
1	2	3	4	5

WORSHIP PLANNING

13. How often are you involved in the following aspects of planning or organising your worship assembly?

(please circle only ONE number per line)	**Never**	**Sometimes** 1 – 2 times a term	**Regularly** Once every 3 weeks	**Often** Once every 2 weeks	**Always** Every week
13.1 Planning the overall make up of events for worship.	1	2	3	4	5
13.2 Organising one part of the worship event.	1	2	3	4	5
13.3 Contacting a guest speaker and arranging the visit.	1	2	3	4	5
13.4 Brainstorming with the leadership team for new ideas.	1	2	3	4	5
13.5 Offering suggestions on how to make assembly better	1	2	3	4	5
Other (please list below) _____	1	2	3	4	5

14. How often do you actively participate in your worship assembly in the following areas?

(please circle only ONE number per line)	**Never**	**Sometimes** 1 – 2 times a term	**Regularly** Once every 3 weeks	**Often** Once every 2 weeks	**Always** Every week
14.1 Saying a public prayer	1	2	3	4	5
14.2 Singing in a group that leads out in worship	1	2	3	4	5
14.3 Playing a musical instrument during praise and worship	1	2	3	4	5
14.4 Giving a talk	1	2	3	4	5
14.5 Making a video	1	2	3	4	5
14.6 Performing a musical item	1	2	3	4	5
14.7 Performing a drama or skit	1	2	3	4	5
14.8 Performing a creative expression (choreographed dance to music)	1	2	3	4	5
14.9 Conducting an interview	1	2	3	4	5
14.10 Introducing a speaker	1	2	3	4	5
14.11 Doing an interactive feature between yourself as leader and the audience (not just singing or worship leading)	1	2	3	4	5
14.12 Sharing a personal testimony / experience	1	2	3	4	5
14.13 Doing an artwork or decorating the place of worship	1	2	3	4	5
14.14 Reading the Bible	1	2	3	4	5
14.15 Performing a mime	1	2	3	4	5
14.16 Leading out in a quiz	1	2	3	4	5
14.17 Providing P.A. or other technical / lighting / electronic assistance	1	2	3	4	5
14.18 Participating in a panel discussion	1	2	3	4	5
14.19 Participating in a debate	1	2	3	4	5
Other (please list) _____	1	2	3	4	5
Other (please list) _____	1	2	3	4	5

15. Following on from the question above - give reasons for your level of involvement.

_____

_____

_____

_____

_____

WORSHIP ASSEMBLY - YOUR PARTICIPATION AND ATTITUDES

Respond to the following statements by circling your degree of agreeing or disagreeing on the scale to the right.

	Circle ONE number per line only.	Strongly Agree	Agree	Uncertain, leaning towards agree	Uncertain, leaning towards disagree	Disagree	Strongly disagree
1.	Worship assembly encourages me to think.	1	2	3	4	5	6
2.	If worship assembly was optional, the only reason I would go to assembly would be to hang out with my friends.	1	2	3	4	5	6
3.	I learn a lot during worship assembly.	1	2	3	4	5	6
4.	In worship assembly I feel like we worship God with meaning.	1	2	3	4	5	6
5.	I try to avoid being distracted during worship assembly.	1	2	3	4	5	6
6.	I enjoy worship assembly.	1	2	3	4	5	6
7.	I want to be challenged to think about God-centred issues and ideas.	1	2	3	4	5	6
8.	If worship assembly was optional, I would still choose to attend.	1	2	3	4	5	6
9.	Assembly encourages me to ask questions about life.	1	2	3	4	5	6
10.	I look forward to worship assembly each week.	1	2	3	4	5	6
11.	Worship assembly is boring.	1	2	3	4	5	6
12.	I am challenged to do something about my relationship with God during assembly.	1	2	3	4	5	6
13.	The only reason I attend worship assembly at school is because it is compulsory.	1	2	3	4	5	6
14.	Issues that affect my life are discussed in worship assembly.	1	2	3	4	5	6
15.	In worship assembly I concentrate on what is being said by the guest speaker.	1	2	3	4	5	6
16.	I wish worship assembly was more relevant to me and my needs.	1	2	3	4	5	6
17.	I like worship assembly when it is interactive and encourages involvement.	1	2	3	4	5	6
18	My friends and I talk about the issues after worship assembly has finished.	1	2	3	4	5	6
19	What I experience in worship assembly will help me in later life.	1	2	3	4	5	6
20.	I want to know more about Jesus as a result of the worship assembly in my high school.	1	2	3	4	5	6
21.	Worship assembly is interesting, engaging and relevant to my needs.	1	2	3	4	5	6
22.	The ideas talked about in worship assembly help me in my relationship with God.	1	2	3	4	5	6
23.	I think we should have more than just one worship assembly per week.	1	2	3	4	5	6
24.	I don't hold back in worshipping God during worship assembly.	1	2	3	4	5	6
25.	I have been confronted with the greatness of God and how he has saved me during worship assembly.	1	2	3	4	5	6
26.	I sing during worship at assembly.	1	2	3	4	5	6
27.	I listen to the speaker during worship at assembly.	1	2	3	4	5	6
28.	I concentrate on what is being presented during worship assembly.	1	2	3	4	5	6

YOU AND GOD

		Strongly agree	Agree	Uncertain, leaning towards agree	Uncertain, leaning towards disagree	Disagree	Strongly disagree
	Circle ONE number per line only						
1.	I believe there is an all-powerful God.	1	2	3	4	5	6
2.	I take time for periods of prayer in order to talk to God.	1	2	3	4	5	6
3.	I believe everyone is equal, and should have a 'fair go'.	1	2	3	4	5	6
4.	My life is filled with meaning and purpose.	1	2	3	4	5	6
5.	God is in control of the destiny of this world.	1	2	3	4	5	6
6.	I want to learn about God while I am still young.	1	2	3	4	5	6
7.	My faith shapes how I think and act each day.	1	2	3	4	5	6
8.	God still loves me even when I have done wrong.	1	2	3	4	5	6
9.	My life is committed to Jesus Christ.	1	2	3	4	5	6
10.	I feel God's presence in my relationships with other people.	1	2	3	4	5	6
11.	God loves bad people just as much as he loves good people.	1	2	3	4	5	6
12.	Every day I see evidence that God is active in the world.	1	2	3	4	5	6
13.	I am active in efforts to promote world peace.	1	2	3	4	5	6
14.	God is more powerful than the forces of evil.	1	2	3	4	5	6
15.	In my free time I help people who have problems or needs.	1	2	3	4	5	6
16.	I devote time to reading and studying the Bible.	1	2	3	4	5	6
17.	God seems to be far away and silent when I need Him.	1	2	3	4	5	6
18.	I seek out opportunities to help me grow spiritually.	1	2	3	4	5	6
19.	God is interested in me and my life personally.	1	2	3	4	5	6
20.	God is not important to me at this stage of my life.	1	2	3	4	5	6
21.	I can rely on God's help when I feel bad.	1	2	3	4	5	6
22.	I am in awe of the beauty of God's creation.	1	2	3	4	5	6
23.	I have a real sense that God is guiding me.	1	2	3	4	5	6
24.	I feel close to God during worship assembly.[1]	1	2	3	4	5	6
25.	I like to worship and pray with others.	1	2	3	4	5	6
26.	I talk with other people about my faith.	1	2	3	4	5	6
27.	I care a great deal about reducing poverty in my country and throughout the world.	1	2	3	4	5	6
28.	My faith helps me know right from wrong.	1	2	3	4	5	6
29.	I do things to help protect the environment.	1	2	3	4	5	6
30.	Jesus Christ, when I ask Him to, forgives and forgets every single bad or wrong thing I have done.	1	2	3	4	5	6
31.	I feel comfortable talking to God during the day.	1	2	3	4	5	6
32.	I give proportions of my own time and money to help other people.	1	2	3	4	5	6
33.	I go out of my way to show love to people I meet.	1	2	3	4	5	6
34.	I feel like doing something about reducing pain and suffering in the world.	1	2	3	4	5	6

[1] This item was included in the attitudinal scales on the previous page.

35. Given the chance to change things, what would you do to make worship assembly better for you?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Please double-check that you have answered every question



Congratulations – you're finished!!!

Thank you very much.

Appendix B

Results

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Appendix B.1

Analysis of Variance Results

Table B.1 ANOVA between *School* and Construct Variables

		Sum of Squares	df	Mean Square	F	Sig.
Attitudes to Worship Assembly	Between Groups	6.048	2	3.024	4.495	0.011
	Within Groups	458.788	682	0.673		
	Total	464.836	684			
Worship Planning	Between Groups	1.708	2	0.854	5.456	0.004
	Within Groups	126.759	810	0.156		
	Total	128.466	812			

Table B.2 ANOVA Descriptives between *School* and Construct Variables

		N	Mean	Std. Deviation
Attitudes to Worship Assembly	School 1	193	3.6334	0.8076
	School 2	159	3.6332	0.8296
	School 3	333	3.8213	0.8229
	Total	685	3.7247	0.8244
Worship Planning	School 1	222	1.1793	0.4501
	School 2	203	1.2453	0.5061
	School 3	388	1.1325	0.3164
	Total	813	1.1734	0.3978

Table B.3 ANOVA between *Year in School* and Construct Variables

		Sum of Squares	df	Mean Square	F	Sig.
Vertical Faith	Between Groups	41.402	5	8.28	5.69	.000
	Within Groups	1050.684	722	1.455		
	Total	1092.086	727			
Horizontal Faith	Between Groups	14.591	5	2.918	2.712	.019
	Within Groups	815.597	758	1.076		
	Total	830.188	763			
Attitudes to Worship Assembly	Between Groups	28.356	5	5.671	8.822	.000
	Within Groups	436.48	679	0.643		
	Total	464.836	684			
Worship Planning	Between Groups	4.018	5	0.804	5.211	.000
	Within Groups	124.448	807	0.154		
	Total	128.466	812			
Active Participation	Between Groups	1.06	5	0.212	4.278	.001
	Within Groups	39.890	805	4.955E-02		
	Total	40.95	810			

Table B.4 ANOVA Descriptives between *Year in School* and Construct Variables

		N	Mean	Std. Deviation
Vertical Faith	Year 7	127	4.9398	0.994
	Year 8	139	4.6403	1.2131
	Year 9	153	4.4958	1.2167
	Year 10	130	4.2	1.2565
	Year 11	108	4.5946	1.2886
	Year 12	71	4.839	1.2908
	Total	728	4.5962	1.2256
Horizontal Faith	Year 7	136	4.0158	1.1197
	Year 8	142	3.7274	1.0972
	Year 9	150	3.9019	0.9685
	Year 10	143	3.6414	1.0586
	Year 11	113	3.842	1.0217
	Year 12	80	4.0125	0.8772
	Total	764	3.8437	1.0431
Attitudes to Worship Assembly	Year 7	125	4.0883	0.6984
	Year 8	119	3.6942	0.8906
	Year 9	141	3.7713	0.7856
	Year 10	132	3.4397	0.8137
	Year 11	97	3.6642	0.8066
	Year 12	71	3.6559	0.8177
	Total	685	3.7247	0.8244
Worship Planning	Year 7	154	1.1714	0.3977
	Year 8	156	1.1038	0.3018
	Year 9	163	1.1828	0.3984
	Year 10	144	1.0944	0.2798
	Year 11	116	1.2621	0.4721
	Year 12	80	1.3075	0.5465
	Total	813	1.1734	0.3978
Active Participation	Year 7	154	1.1522	1.1522
	Year 8	156	1.1019	1.1019
	Year 9	159	1.0671	1.0671
	Year 10	146	1.0605	1.0605
	Year 11	115	1.1261	1.1261
	Year 12	81	1.1475	1.1475
	Total	811	1.1052	1.1052

Table B.5 ANOVA between *Gender* and Construct Variables

		Sum of Squares	df	Mean Square	F	Sig.
Vertical Faith	Between Groups	21.003	1	21.003	14.237	.000
	Within Groups	1071.082	726	1.475		
	Total	1092.086	727			
Horizontal Faith	Between Groups	69.451	1	69.451	69.566	.000
	Within Groups	760.737	762	0.998		
	Total	830.188	763			
Attitudes to Worship Assembly	Between Groups	18.090	1	18.090	27.657	.000
	Within Groups	446.746	683	0.654		
	Total	464.836	684			

Table B.6 ANOVA Descriptives between *Gender* and Construct Variables

		N	Mean	Std. Deviation
Vertical Faith	Male	371	4.4295	1.3460
	Female	357	4.7693	1.0640
	Total	728	4.5962	1.2256
Horizontal Faith	Male	402	3.5576	1.0531
	Female	362	4.1614	0.9356
	Total	764	3.8437	1.0431
Attitudes to Worship Assembly	Male	347	3.5643	0.8802
	Female	338	3.8894	0.7282
	Total	685	3.7247	0.8244

Appendix B.2

Regression Analysis Results

Table B.7 Causal Pathway Descriptive Statistics

Dependent Variable	Independent Variables	Beta	SE Beta	P values	R^2
Vertical Faith	You a Christian	0.405	0.090	0.000	0.694
	Previous school worship experience	0.050	0.009	0.046	
	Previous church worship experience	0.197	0.013	0.000	
	Attitudes to worship assembly	0.454	0.039	0.000	
Horizontal Faith	Year in school	0.069	0.021	0.032	0.397
	Gender	0.184	0.067	0.000	
	Attitudes to worship assembly	0.555	0.042	0.000	
	Active leadership participation	0.073	0.160	0.024	
Attitudes to Worship Assembly	Year in school	-0.184	0.018	0.000	0.218
	Gender	0.164	0.057	0.000	
	You a Christian	0.295	0.083	0.000	
	Previous church worship experience	0.161	0.012	0.000	
Worship Planning	Year in school	0.085	0.009	0.015	0.044
	You a Christian	0.068	0.041	0.008	
	Previous church worship experience	0.157	0.006	0.000	
Active Leadership Participation	Previous church worship experience	0.214	0.003	0.000	0.044

Note: Table includes the standardised regression coefficient, standard error, p value and R^2 of significant paths ($p<0.05$) in the causal model.

Epilogue

The researcher has a long personal involvement with Christian education and particularly with the worship components of church and school life. Being a pastor's son, he has often been involved in the planning of, production of and participation in worship services in both the church and school. This past has taken the researcher on a winding personal journey of faith ranging from faith elation to periods of faith doubt and despair.

Amidst these experiences and constant involvement in worship, a question has occupied his thoughts: what impact does worship have on one's faith?

When the opportunity arose to research an area in Christian education, finding a topic of interest was not difficult. In response to the researcher's life-long experience and recurring questions, the opportunity arose to more thoughtfully and systematically explore the area of crucial relevance to Christian education: the interplay of high school worship assembly with student faith maturity. A chance to explore this and other questions has now become a reality.

The researcher is currently a final-year teacher trainee. As the opportunities for full-time Christian education begin to appear in new horizons, the understanding of the processes of faith development in students is of crucial importance to being an effective Christian educator.

It is the hope of the researcher that the findings of this study have provided an enhanced glimpse of faith and its development for the reader. The researcher also looks forward to the practical implications of the findings in the hope that the findings will convert into the implementation of faith growth opportunities with eternal significance for high school students.

Truth lies beyond faith, in the heart of God.

– Wilfred Cantwell Smith