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Ministry Of Teaching

EDITORIAL

Graeme Perry

When I heard Catherine Hamlin had been nominated for the 2014 Nobel Peace Prize by the Ethiopian government, for me, her nomination was the only requirement for winning the award. In her 90th year, still living in the grounds of the hospital she established in 1974, to specifically treat obstetric fistula—an outcome of obstructive labour in childbirth—she dedicatedly continues to supervise in operations and fundraising. Over half a century of humanitarian service, alleviating physical and emotional suffering, in my mind were tantamount to 'winning'.

The announcement that "The Norwegian Nobel Committee has decided that the Peace Prize for 2014 is to be awarded to Kailash Satyarthi and Malala Yousafzay for their struggle against the suppression of children and young people and for the right of all children to education", was a surprise. Presentation of a joint award indicated the difficulty of a committee challenged by multiple highly credentialed nominees.

A significant shared attribute of the winners is courage. Kailash Satyarthi, an Indian Hindu, now 60 years old, was originally a teacher, but in 1980 became secretary general for the Bonded Labor Liberation Front and founded the Bachpan Bachao Andolan (lit. Save the Childhood Movement). He has subsequently prominently led peaceful demonstrations (Global March Against Child Labour) protesting the financial exploitation of children, some in slave-like conditions, and has also participated in the formation of significant international conventions on the rights of children, including their access to education.

In comparison, Malala Yousafzay, now 17 years old, a Pakistani Muslim schoolgirl was shot while on her school bus (9 October 2012)— the bullet entering her left forehead, passing down her face entering her shoulder—because she persisted in publically condemning the Taliban restriction of the opportunity of young females to access education. Blogging, documentaries and international interviews attracted family and personal death threats but undeterred she still continues to maintain her 'voice' perhaps most obviously in her advocacy at the UN Assembly on the 12 July 2013, dubbed 'Malala Day'.

> The terrorists thought they would change my aims and stop my ambitions, but nothing changed in my life except this: weakness, fear and hopelessness died. Strength, power and courage was born … I am not against anyone ... I'm here to speak up for the right of education for every child. I want

education for the sons and daughters of the Taliban and all terrorists and extremists (Wikipedia, 2014a, para.47)

Both prize winners have affirmed the assertion in the press release of the Nobel Prize Committee (2014):

> It is a prerequisite for peaceful global development that the rights of children and young people be respected. In conflict-ridden areas in particular, the violation of children leads to the continuation of violence from generation to generation. (para. 1)

Selflessness has been demonstrated to the extremity of giving their life either in a moment, or over a lifetime, in all of these Nobel Peace Prize nominees. Their goal is to protect foundational values that perpetuate peace.

How do we support equal access to education for children? Help maintain the peace in our country?

We acknowledge the importance of the Royal Commission into Institutional Responses to Child Sexual Abuse and ensure schools continue to fully respond to its revelations on all abuse. Educators vision beyond the assertions of the Review of the Australian Curriculum, then question (and change) their own school's performance in 'deal[ing] with the moral, spiritual and aesthetic education of students' (Petersen, 2014, para. 4).

We determine to gain the 'noble prize' by giving our 'professional life' (and more) to children— selflessly. TEACH

Selflessness has been demonstrated to the extremity of giving their life either in a moment, or over a lifetime, in all of these Nobel Peace Prize nominees

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[Photography: Glenys Perry]

Adventist Encounter Curriculum: The story continues

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Stories have always been a powerful medium. They have captivated humanity since ancient times and continue to draw us in via different mediums. Great stories engage us, shape our worldview and identity, and encourage us to live grander lives. Teachers of the Bible share a God-given privilege; they are Storytellers, creative crafters of words that teach by attraction; inviters of narrative experiences that capture the imagination and reach the heart. However, Bible teachers are far more than a storyteller using an effective pedagogical tool within an academic discipline, for they share 'the greatest story' the world has ever known. It is a metanarrative that surrounds us and bookends time itself.

> *Each one of us has the potential to become both a chapter of history and His story*

Life's lens adopts such clarity when we see our world though God's story. We both find our place in it and live our life from within its truth. This is the story we were born for. *"God's story isn't over; it's still being told today. Each one of us has the potential to become both a chapter of history and His story."*[i] Life brings new meaning when we connect with Him who is both Storyteller and Protagonist.

In 2008, Adventist Schools Australia and New Zealand Pacific Union Conference began a joint venture to develop a new Biblical Studies Curriculum for Adventist schools. The desire for the production team was for this new curriculum to introduce students to God in an environment that was Bible-based, engaging, academically rigorous, faith-building, and life-changing for both students and teachers from an Adventist worldview. At the close of 2014, the *Adventist Encounter Curriculum* will have completed its production and rollout, offering a range of teaching units and resources from Kindergarten through to Year 10. In the minds of the production team, this program has sought to share God's Great Story, and in doing so, host meaningful encounters between God and His children.

Adventist teachers around Australia, New Zealand, England, and more recently, the United States*, are teaching from the *Adventist Encounter Curriculum* and have shown that they are passionate about living and sharing God's Great Story. Below, they reflect on the impact it is making on their students.

Stories of connection

Secondary teacher Debbie McKay, from Toowoomba, Australia, writes how she invited her class to complete a task in Bible class. One of her students shares how she has seen her peers show a deep sense of connection with each other,

> Encounter is an environment where my class feels really connected and comfortable with each other. The last assignment we had, two boys were presenting their work to the class. When they came to the 'personal application' part of the assignment, one of the boys started to open up to the whole class about a tragic event that had happened in his life in the past that most of us never knew about before. He then shared about how he overcame his struggles with God's help and how the Bible story he and his assignment partner had studied had helped him. The whole class was really supportive of him and it was just awesome! (Female Secondary Student, Toowoomba)

At Noosa Christian College, QLD, Amy Turner allows time at the end of every topic for her secondary students to write her a letter where they can express their thoughts about God and ask any questions they may have. Amy is a busy teacher, and while this is time-consuming, she believes in honouring her students with a personal response. She writes back to every student, encouraging them in their spiritual journey, answering any questions they have. She also invites them to join a Bible reading plan or Bible studies. Many students respond

*An Adventist Encounter Curriculum pilot progam is currently underway in the North American Division of Seventh-day Adventists.

to this offer each year. *"In a school where we have very few Christians, let alone Seventh-day Adventists, seeing them take this step in seeking a deeper relationship with God is really exciting,"* she shares.

Meg Harebottle, from Coral Coast Christian School in Bundaberg explores what the quality of *Thankfulness* really means with her Year 2 – 4 students. In the centre of the room, as a focus point, is a Promise-Well. They have read the story about how to fill someone's bucket and have explored how doing this helps people become whole in Jesus. Small buckets hang from the well where they can post promises from God. God's promises help 'fill us up' and become whole. Students use this concept as they share small testimonies at the local Salvation Army facility, where connections are made with the community and hearts are touched.

Stories of wonder

Noeline Timothy, teacher in Waitakere, New Zealand, sets out on a new narrative with her students. The topic is the Year 5 Easter message, with a focus on the symbolism of Jesus as the Lamb of God who took away the sins of the world. To highlight the symbolism of the lamb, Noeline purchases for each child a small ceramic and woollen lamb. Following the cultural practice of Jesus' day, on 'lamb selection day' they 'choose' their lamb, and for the next 10 days they proceed to 'care' for it. She is surprised at the attachment that develops. The children know that later they will need to bring their lamb and surrender it, for it is to be 'sacrificed.' They are genuinely disturbed about giving up their lamb (however simulated the experience). On the last day of school before Easter break, they are all present. Their lament is genuine, their discomfort real. There is pleading not to sacrifice the lambs.

Noeline invites them to imagine that Jesus is really with them, and invites them to imagine the scene of the upper room by showing them a scene from a DVD entitled 'Matthew'. The students are sober and completely drawn in. This is not just another story that they hear people talk about. She can tell that this has become personal. They sense His invitation as He washes the disciples' feet, and then do the same for each other. They hear Jesus talk directly to them and offer them the bread. All is quiet and reverent, and their minds are curious. *What about the lamb? What about their lamb? Do they really have to give him up?* After viewing the scene of the cross and realizing that because of Jesus' sacrifice, the sacrifice of the lamb is no longer necessary, their relief is profound, and their wonder and awe for God is clear. They truly get it. *"Thank you, Mrs. Timothy! Thank you so much!"* *"Don't thank me,"* is her reply, *"Thank Jesus who made the sacrifice for us all."*

"Encounter has really helped deepen my own personal understanding of the Bible. At times we all learn together," Noeline continues. *"It's really helped me to grow in my relationship with God as well. I think my students see it. At times I share my own walk with God and I well up with emotion. They sense that and connect with it, and we all grow closer as a class,"* she says. *"I can't believe ideas for such moments are all there in print, just ready to take and use."*

Another primary teacher, Jovy Crallan, from Auckland, tells of doing earthquake drills with her Kindergarten students. She makes a call, and the children respond quickly by moving under desks and firmly holding on to them. She watches with wonder as they reassure each other, *"Don't be scared. Jesus*

> *Their lament is genuine, their discomfort real. There is pleading not to sacrifice the lambs*

Noeline Timothy, primary teacher in Waitakere

Jovy Crallan, Kindergarten teacher, Auckland

is with us," and proceed to spontaneously sing songs from their *Encounter* lessons. On another occasion in a Police lockdown practice, where they again need to move quickly under desks when 'Lockdown' is called, a boy spontaneously begins to pray. She is so assured that her children know when to pray. They know why and how to pray. It's a strange place for wonder to reside, but she thanks God for making His presence known, even here.

Jovy is moved again as 5-year-old Elizabeth, overwhelmed with how perfect and beautiful everything was that God made at Creation, and that it will be this way again in Heaven, calls out in amazement, *"Really? Really? Really?"* She then boldly declares, *"We have to pray."* She bows her head. The whole circle of students goes quiet and she spontaneously proceeds, *"Please, please, please dear Jesus, make everything new again."* It is another moment of wonder for all, born from the heart of a child.

Five year old Tamatini, is also touched by God at the end of a unit on Creation. Students are invited to pray. Although not as familiar with prayer, his words emerge, clear and strong,

> *Dear God you are Holy Spirit and we love You, and You do love us because You made the world and the seas and the world and the moon and spaces, river, water… You made the people, You made the sun, You made the worlds and You made us, so we love You. Amen"* (Tamatini, age 5, Auckland, NZ)

His words are captured on video and Tamatini's parents are emotional and very surprised to see his conviction after attending the school for such a short time.

Stories of transformation

Teacher Meg Harebottle, also recalls with clarity the impact of the '*Survivor*' Salvation unit on her senior Primary class. Towards the end of the unit, students are invited to personalize Isaiah 25:9, and then write a response to God about His incredible rescue plan for them. Out of this reflective time, 15 of the 16 in her class request Bible studies and baptism. A few days later, the one remaining boy comes to Meg and tells her that he also wants to commit to Jesus. She questions him and assures him that he need not feel any pressure at all to do this. In fact, she tells him that she admired him the day before for being true to his heart. But in their talking, she realises he is sincere, and that it is a quiet, deep, heart-searched decision. This class decision for God transforms the whole tone of her classroom.

Amy Turner further reflects on her Year 11 class. One of the girls has passively participated

in Encounter since Year 8. At the beginning of the year this student had a heartbreaking incident in her family where her brother committed suicide, which understandably rocks her world. Amy spends significant time debriefing and nurturing her, responding to her many questions about God and grief. Amy also prays for her. During the school's Week of Worship, this young woman gives her heart to God. She shares her deepest thoughts with Amy, *"I listened all throughout your Bible classes, and I wanted to believe, but felt like I couldn't. I knew it all in my head from class, but now I know it in my heart."* Amy further shares, *"While from my perspective I felt like the classes were not really reaching her, God was using them all along. The Encounter classes were the seed that would later develop into her desiring a relationship with God."*

Back in Noeline's classroom, Yr 6 student Rachel reflects in her Encounter Journal after exploring the 'Set Apart' unit. She writes,

> *I am soon going to make a choice of following Jesus when it is the right time. I will make the choice of following Jesus and letting everyone know that Jesus is my Saviour and that I am going to do what He wants me to do.*

Later she writes,

> *Dear Jesus, I want to live my life the way you lived. I want to show everyone that I have been set apart for you. Please help me to not be tempted into doing wrong and to stay with the Holy Spirit. Please help me to change in the a way that will please you.* (Rachel, Year 6, Waitakere, NZ)

Rachel goes on to further Bible studies with a training pastor. Noeline's excitement builds as three other girls, Maka, Claire and Lata request for Bible studies and 2 boys, Malu and Ananaiasa express their desire to be ministers for God when they

> " *I will make the choice of following Jesus and letting everyone know that Jesus is my Saviour* "

finish school. God, the Great Author, is working on hearts.

Teacher Teresa Pollock, from New Plymouth, teaches another Salvation unit with a celebration theme. A number of God's gifts to us have been explored and the students are now reflecting on what this means to them. Teresa shares how salvation is God's greatest gift to us; that all we have to do is accept Jesus. A Year 4 boy, having been intent on the process and the current discussion bursts out with anxious enthusiasm, *"But I haven't done that before! How do I do that? I want to do it now. Please help me do it NOW!"*

Teresa, her heart warmed by his fervor, draws him aside and together they pray the prayer of repentance. He bursts with excitement, and all of Heaven celebrates.

Primary teacher, Ana Pepa, of South Auckland Adventist School, is frustrated because she is needed immediately in two places at once. Senior School Assembly is about to start, but the senior boys have just had a scuffle on the field emerging from a touch rugby game. She knows that bruised egos and raging hormones are not a good mix, and quickly places the boys with two school leaders in her classroom. She tells them this is their issue, and as young Christian men, they need to sort this out sensibly - and then she leaves the room, knowing it is risky to do so. After a while she returns with her class to find the door locked. They wait outside until one of the boys opens the door with the comment "Sorry, Miss, we were inside praying for each other." She is absolutely touched when they walk in to see the boys on their knees, with tears and hugs! "Best moment ever!" she shares. Suddenly she is humbled at the way God is moving on hearts and minds within her *Encounter* class discussions and learning experiences.

In regional Australia, a parent affirms a teacher and the powerful work the school is doing for the children through their Encounter and chaplaincy programs. He says with intensity, *"I need to tell you what you're doing here… It's much more than you realize."* Then he shares of another school family who had recently decided to separate. On telling their child, her response was *"No, but that's not what Jesus wants families to be. He wants us to be together and happy!"* These words make the parents sit back—and reflect—and persevere to work through their challenges. A different path was taken. Again, he says, *"What you are doing here is so good. It's impacting so many lives."*

Secondary Teacher and Chaplain, Blaire Lemke, from Tweed Valley Adventist College, reflecting on the impact of Encounter shares,

Through teaching Encounter to Year 10 this year, I have seen it help students and parents alike to hear God's voice and follow Him. I look forward to seeing more lives impacted and transformed for God's glory as a result of the Adventist Encounter Curriculum. (Blaire Lemke)

Stories of engagement

Teacher Andon Boyce from Canada, reflects on the engagement of his Year 9 students, *"I marvel at the fact that students are asking to keep copies of the book Messiah, so they can read it for themselves… I've never experienced this before! The students are given a taste for God and are hungering for more!"*

Two Year 9 students from the USA recently shared their thoughts on *Encounter*:

It's relaxed but not easy. I come to school looking forward to Bible class because it's fun and not stressful, but it's also deep. I've explored my beliefs a lot more this year. It's really made me think and grow. It's much less stressful without tests and homework and I learn so much better. This curriculum is God smart not just book smart. (Student 1, Year 9, US)

I like how teen-oriented it is. We aren't just hearing the same stories the same way. The curriculum shows a new light on the stories so we can have a different and less-biased view. It's less focused on education and more focus on personal understanding. (Student 2, Year 9, US)

Stories of new horizons

Back in Waitakere, New Zealand, Noeline Timothy's story is continuing and expanding in its scope. Her passion for God and her appreciation of the detail that the *Encounter* units offer has inspired her to take the content and broaden it, integrating it into her Literacy, Arts and ICT programs. As a part-time teacher teaching three days a week, she now takes the content and fashions it into an integrated two-hour morning block to include these other key learning areas. The results, in Noeline's estimation, are exciting.

Encounter has enabled me to really integrate God into so many subject areas. The Bible now underpins so much of what I do. I love to see God coming through in so many ways. I love that my students are coming to know Him, His character and His grace while learning new skills. It's completely changed the way I teach. (Noeline, Timothy, Waitakere, NZ)

Maria Simon at Gilson College, Mernda, is also integrating learning areas using *Encounter* topics as the core for the curriculum at this new school. As a foundation for learning, both biblically and pedagogically, *Encounter* lends itself to be expanded upon as new horizons are discovered.

> " *I've explored my beliefs a lot more this year. It's really made me think and grow... This curriculum is God smart not just book smart* "

The Greatest Story… about you (and me)

It is exciting and encouraging to see students being encouraged to have an authentic encounter with God, the author of the Great Story, and that they can come to say with David, *"God rewrote the text of my life when I opened the book of my heart to his eyes" 2 Samuel 22:25 MSG.* This story changes lives because God Himself has drawn them to Himself. *"If I be lifted up, I will draw all men to me"* John 12:32.

As Amy Turner, says so aptly, *"I have to remind myself that it's the Holy Spirit's job to convict them, not mine. I can plant the seed and tend the growing environment, and that's all I can do. God does the miracle."*

Secondary teacher, Peter Lindsay, at Avondale High School, expands on this thought in his comment,

> *After having taught the program for four or five years now, since we started trialling the initial units, I have come to the conclusion that I really should be praying quite specifically for the Holy Spirit to be present in the classroom as we present to the students on a daily basis. To my shame, I must admit I hadn't been praying that for every day before.*
>
> *I think there is danger for Bible teachers to perhaps think that in their classes at some stage they will say something so profound that the students will be moved to want to accept Jesus as their Saviour.*
>
> *I came to the conclusion that that is not the way it is. It is the Holy Spirit who moves on students' hearts, not what I say. As such I figured that I need to be praying for the Holy Spirit to specifically flood the classroom each day and that all evil angels will be forced to flee so that only God's angels can be present to also encourage students.* (Peter Lindsay, Avondale, NSW)

Our Story-teller teachers realise the significance of their roles in being instrumental in drawing children into the Greatest Story of all time. *'He who co-operates with the divine purpose in imparting to the youth a knowledge of God, and molding the character into harmony with His, does a high and noble work.'* [ii]

God alone is the Author and Finisher of our faith. Yes, it is *His Story*, but what a privilege to help write a chapter. **TEACH**

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[i]'Story' (2006) by Steven James, Revell, a division of Baker Publishing Group, Michigan p. 84

[ii]Education (2009) by Ellen G. White, Everlasting Gospel Publishing Association, Soul, p. 18

> *I can plant the seed and tend the growing environment, and that's all I can do*

Vision for Learning (Part I): A tool for educators to assist in the detection and treatment of vision difficulties

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The Optometrists Association of Australia (OAA, 2013) advocates that good vision is important for a child's educational, physical and social development. However, according to the Australian Institute of Health and Welfare (2008, p. 8), "along with allergies and asthma, eye disorders are the most common long-term health problems experienced by children". Furthermore, the Children's Vision Campaign estimates that approximately 1 in 4 Australian children suffer from undetected vision problems (OAA, 2013).

Primary teachers encounter many students with various difficulties that have impacted on their learning to varying degrees. This document was created to provide educators with an overview of basic vision difficulties and treatment options. However, it is vitally important to recognise that only a trained practitioner can properly diagnose and treat vision problems.

"There are three interrelated areas of visual function: (1) *visual pathway integrity*, including visual acuity (clarity of sight) and refractive status; (2) *visual efficiency*, including accommodation (focussing), binocular vision (eye teaming) and eye movement control (tracking); and (3) *visual information processing*, including spatial awareness, identification and discrimination, and integration with other senses" (Australasian College of Behavioural Optometrists [ACBO], 2013a).

While it is widely recognised that development can vary significantly from child to child, it is not often recognised that vision also develops (Kelly, 2012, a; 2012b). Vision is in fact our most dynamic sense (ACBO, 2013a). Describing infant vision, the

American Optometric Association (AOA), comments that infants *learn to see* over time: "learning to focus their eyes, move them accurately, and to use them together as a team; and learning to use the visual information transmitted from the eye to the brain in order to interpret, understand and interact appropriately with the surrounding environment" (para 1). Thus, while it was once thought that visual ability was simply inherited, it is now recognised that visual development is largely experience dependent – guiding the plasticity of the developing brain, particularly in those vital years of infancy (Kasamatsu, 2013; Norcia, 2013).

Neuro Developmental Optometry is described in enthusiastic terms by the ACBO (2013b). What is already widely known, in relation to the development of the brain, is that nature opens certain windows for experience to have the greatest effect – optimising developmental opportunities in vision and all other areas (Gabbard & Rodrigues, 2011). Lack of appropriate experience at that time may limit the brain's development to its full potential. However, it is important to recognise that while these windows narrow, they do not shut, meaning that learning is always possible (Gabbard & Rodrigues, 2011). In relation to best utilising these windows of opportunity, the ACBO (2013c) suggests a range of developmentally appropriate activities for helping to develop children's vision abilities, useful for educators and especially parents.

While vision development has some degree of flexibility due to the *plasticity* of the brain, it is also reliant on the sufficient maturity of the nerve cells and of the total physiology of the individual (Hamer, 1990). For this reason, there is a great potential for premature birth to adversely impact on vision

> *It is now recognised that visual development is largely experience dependent – guiding the plasticity of the developing brain*

development (Davidson & Quinn, 2011, p. 337). Also, an important implication for educators and parents is that children must be developmentally ready when commencing formal education.

Rich brains are the product of rich environments; the 'richness' of which is largely determined by both the *quality and quantity* of movement activity (Gabbard & Rodrigues, 2011). The ACBO (2013b) emphasises the importance of adequate physical interaction with the environment in developing vision, stating that "vision is motor". "Individuals are spending much more time concentrating at near distance in sustained ways over extended periods of time which is especially true in the younger generations, and raises serious concerns for the developing eyes and visual systems" (ACBO, 2013d, p.2). The excessive *screen time* that is characteristic of modern society results in many missed opportunities for healthy *real-world (3-D)* experiences, hindering visual development through providing unusually high visual attention grabbing stimulus on a two dimensional screen, without supportive interaction (Peachy, 2013, p. 4). The term *Computer Vision Syndrome* has even been coined to describe the effects of spending excessive amounts of time viewing digital screens, particularly since the development of social media sites such as *Facebook* (ACBO, 2013d). And though excessive computer time may not be the cause of vision problems in all cases, extended periods spent focussing on a computer screen can certainly highlight difficulties where they are present (ACBO, 2013d, para. 8).

In addition to developmental causes, vision problems may be caused by "deficiencies in the physical structures that provide sensory information" (ACBO, 2013b, para. 6) such as *the eyes* and other components of the *visual pathway*. Also, "vision problems and symptoms are among the most common difficulties associated with *acquired brain injuries*" (ACBO, 2013e, para. 1). "Since vision systems are in many parts of the brain, it is possible for any insult to the brain to lead to significant effects on a person's ability to read, drive, walk and work" (ACBO, 2013e, para. 2). Although such difficulties may be present, there may not be any medical evidence such as in images from *Magnetic Image Resonance (MRI) Scanners* (ACBO, 2013e, para. 17).

Due to the interconnectedness of the visual system with many other systems, "eye and vision problems can cause developmental delays" (*American Optometric Association*, 2013, para. 4). Therefore, developmental problems in relation to vision can have far reaching consequences, and will likely require a multi-disciplinary treatment approach (ACBO, 2013a, para. 2).

> "
> *Rich brains are the product of rich environments; the 'richness' of which is largely determined by both the quality and quantity of movement activity*
> "

Behavioural optometry

Whether it is simply for a routine assessment or to determine the exact nature of a problem where signs of difficulty are detected, visual assessment should be conducted by a *behavioural optometrist*.

In order to encourage the development of vision, behavioural optometrists create and prescribe complex visual programs designed to eliminate visual problems and enhance visual performance (ACBO, 2013f, para. 34). These programs utilise a *holistic* approach which incorporates physical, neurological and developmental aspects of vision (ACBO, 2013f, para. 33). Therefore, behavioural optometrists will carry out a physical examination to evaluate a child's medical and neurological circumstances and history, and also conduct a complete psychological, emotional and behavioural evaluation (Handler & Fierson, 2011, pp. 833, 829).

The goals for Behavioural Optometrists include: prevention of the development of vision and eye problems; "provision of remediation and rehabilitation for vision or eye problems that have already developed; and development and enhancement of visual skills needed to achieve more effective visual performance" (ACBO, 2013b, para. 21). Clearly, the *Snellen Chart* (eye chart) used in routine eye exams is not sufficient in adequately assessing total visual performance.

For many children, vision difficulties may not become apparent until they enter school. According to the ACBO (2013g), this is due to the fact that spending extended periods of time concentrating at near distance in a sustained manner often highlights any visual deficits that are present – as opposed to actually causing difficulties to manifest. The ACBO (2013g) reports that "behavioural optometrists often find that most children with learning-related vision problems have good eyesight, but have great difficulty conducting close-up vision activities such as reading and writing" (para. 14).

Vision related problems that educators should be aware of include: difficulty with alignment and binocularity (eye teaming skills); strabismus (crossed or wandering eyes); amblyopia (lazy eye); difficulty with oculomotility (eye tracking skills); difficulty with accommodation (focusing); and difficulty with visual perceptual processing. In addition, one area that seems to be somewhat overlooked, but is extremely important nonetheless, is vision problems related to behavioural stress and anxiety difficulties.

It is also important to note, that a high number of children suffer from *colour vision deficiency* (CVD). Statistically, there will be at least one colour blind child in every classroom, with the proportion being much higher in all-boys schools (Colour Blind Awareness, 2013, para. 6).

Treatment

"Developmental optometrists divide vision therapy into 2 broad categories: *classic orthoptic techniques and behavioural or perceptual vision therapy*" (Handler & Fierson, 2011, p. 843). In addition, effective treatment also requires optometrist to work collaboratively with "other professional disciplines, taking a multidisciplinary approach to evaluating an individual's displayed difficulties" (ACBO, 2013a, para. 2).

Orthoptic treatment

Orthoptic techniques include the use of lenses (single vision, bifocals, multifocals, tints, prisms and occlusive), as well as surgery to modify the sensory input from eyesight (ACBO, 2013b, para. 14). These are vital tools in treating eyesight problems; however, in the treatment of vision problems they are not sufficient on their own. Vision problems also require vision therapy (Heiting, 2013, para. 5).

For the treatment of some conditions the debate about whether vision treatment should involve orthoptic treatment or vision therapy is quite heated. For example, the two different approaches to the treatment of strabismus are surgery and therapy (CVIN, 2013, para. 6). While surgery is often recommended by optometrists not trained in vision therapy, vision therapy has been demonstrated to achieve higher success rates in correcting strabismus (CVIN, 2013, para. 16). Behavioural optometrists believe that this is because vision therapy addresses the real cause – failure of the brain to achieve binocularity of the eyes (CVIN, 2013, para. 16). In fact, in some cases surgery has even been found to cause scar tissue to develop, only to compound the problem further, and cause later non-surgical interventions to be more difficult (CVIN, 2013, para. 11).

From an educator's perspective, the most important consideration pertaining to orthoptic treatment is to ensure compliance with any treatment provided. For example, if a child must wear glasses for certain activities, it is important that teachers ensure that they do so.

Behavioural and perceptual vision therapy

"Behavioural and perceptual vision therapy (behavioural vision therapy) is an optometrist-supervised, non-surgical and customised program of visual activities designed to correct certain vision problems and/or improve visual skills" (Heiting, 2013, para 3). "Unlike orthoptic treatments such as eyeglasses and contact lenses, which simply compensate for vision problems, or eye surgery that alters the anatomy of the eye or surrounding muscles, vision therapy aims to teach the visual

system to correct itself" (para. 5). Thus, "vision therapy is like *physical therapy* for the visual system, including the eyes and the parts of the brain that control vision, visual perception and other vision-related functions" (paras. 6, 8). "By treating the entire visual system, vision therapy aims to change *reflexive* (automatic) behaviours to produce a lasting cure" (para. 14). One means of developing automaticity is to ensure that individuals "come to understand and use visual information more effectively – to approach vision *metacognitively*. For example, advice may be given on how to adapt the environment and alter work habits to reduce the load on the visual system" (ACBO, 2013g, para. 10) and of course, the most obvious means of developing automaticity is rehearsal (practice).

As mentioned previously, vision therapy is part of a multi-disciplinary approach, aimed at improving the child's overall capacity for learning (Heiting, 2013, para. 39). "Referral to another professional may be an adjunctive or even the sole outcome of the optometric evaluation" (ACBO, 2013a, para. 18).

In addition to taking a multi-disciplinary approach, therapy should also take a multi-sensory approach. For this reason, while computer-based programs may be somewhat effective in treating vision problems, they are limited in that they do not allow for integration of body movements into training programs (ACBO, 2013b, para. 11). It is important to remember that *engaging* in real-world (3-D) experiences is still the most effective means of developing vision, and that vision requires movement. This is a fact that is important for educators to remember – especially since they often require their students to sit for extended periods of time while engaging in complex near-vision tasks. Interspersing such activity with physical activities, such as engaging in both indoor and outdoor movement games is important for the developing visual system. *Appendix A (available in Part 2)* provides a link to information on *Brain Gym* – a physical movement program that teachers may find useful in integrating movement activities into their classroom.

Whether educators are engaged in referring students to vision therapy, or in fact assist with part of a child's vision therapy, it is important that they have some idea about the success and limitations of such therapy. Therapy outcomes are largely dependent on the nature and extent of vision difficulties (Heiting, 2013, para. 24). Also, in some cases "vision therapy may be hindered by memory and cognitive deficits, as well as physical health setbacks" (Ciuffreda, et al., 2008, p. 22). What is clear is that "the earlier the problem is addressed

For some conditions the debate about whether vision treatment should involve orthoptic treatment or vision therapy is quite heated

the better the long-term results usually are" (ACBO, 2013a, para. 19). However, research findings do suggest "considerable visual system plasticity in response to targeted vision rehabilitation" (Ciuffreda, et al., 2008, p. 21); therefore, it should never be considered *too* late to start vision therapy.

Educators should also be aware that at times eye doctors might recommend eye exercises at home, but it is important to note that research indicates that the improvement outcomes of those performing home-based exercises is much lower than those engaged in office-based vision therapy in combination with home exercises; with one study finding success rates of 43% and 73% respectively (Heiting, 2013, para. 32). If such a program does fail to produce gains, teachers must provide feedback to parents and perhaps optometrists.

Thus, some implications of vision therapy for teachers are: that teachers must assist students who require vision therapy to engage in every aspect of their vision therapy as it is relevant in the school setting; and to work collaboratively with parents and other professionals, providing regular feedback on therapy outcomes, as well as ongoing visual difficulty. Most importantly, teachers should treat every student as though they require vision therapy; engaging students in *movement activities* that promote the development of vision, and ensuring that students develop *good vision habits*.

> *Teachers should treat every student as though they require vision therapy; engaging students in movement activities that promote the development of vision*

Good vision habits

There are a number of 'good vision habits' that individuals can adopt in order to ensure maximum visual efficiency. These habits are useful for both educators and parents, and are based around the following recommendations by vision experts:

- "**Take a break every 20 minutes** when reading, studying or completing close work. Look up, focus on other objects around you, close your eyes and roll them widely a few times, before resuming work" (ACBO, 2013f, para. 12).
- "**Work distance is important**: don't hold your book or work too close. Knuckle to elbow distance between your eyes and the book is ideal" (ACBO, 2013f, para. 13).
- "**Good lighting**: ensure that your work is adequately lit. Room lighting is adequate so long as it also illuminates the reading matter" (ACBO, 2013f, para. 14). Glare and reflection should be minimised (OAA, 2013e, p. 4).
- "**Good posture**: don't read whilst in bed or reclining. Remember to keep text at an appropriate distance, and also to use both eyes equally" (ACBO, 2013f, para. 15).

- "**Angle of work surface**: slope-topped desks are recommended due to the fact that they encourage a balanced body posture" (ACBO, 2013f, para. 16).
- "**Watching Television**: don't sit closer than you have to, and ensure that the room is well lit" (ACBO, 2013f, para. 17). Limit the amount of time that is spent watching television to sessions of no more than two hours (OAA, 2013e, p. 4). Federal Government guidelines actually recommend that for developmental reasons children under the age of two should not watch television at all (Australian Government Department of Health and Aging, 2009, p. 2).
- "**Alternate close work with activities**: intensive use of eyes, such as when studying should be alternated with a period of activities that require distance vision, such as outdoor play and sport" (ACBO, 2013f, para. 18).
- "**Don't overdo it when you're sick, tired or stressed**: your body's energy reserves are lowered and visual skills will be reduced" (Handler & Fierson, 2011, p. 832; Rahman, et al., 2013, p. 1). High fever can damage the visual system (ACBO, 2013f, para. 19)
- "**Don't read in the car**: the movement of the vehicle places excessive strain on your eyes when focusing and teaming" (ACBO, 2013f, para. 20).
- "**Good writing grip**: should be between the thumb and the next two fingers, and allow you to see the tip of the pencil when writing. You should also ensure that work angle and posture are correct" (ACBO, 2013f, para. 21).
- "**Glasses**: ensure that you understand their purpose – for near or far vision, or constant wear. Make sure they are kept clean, well-adjusted and work straight on the face" (ACBO, 2013f, para. 22).
- **Read aloud to children (particularly when they are younger)**: in order to assist them to develop strong visualisation skills as they learn to 'picture' the story in their minds (CVIN, 2013b, para. 7). When children are read aloud to, they are assisted in developing language skills that may be helpful in overcoming any vision problems that are present (Handler & Fierson, 2011, p. 848). Handler & Fierson (2011) inform that "educational experts indicate that reading aloud to children is the single most important activity for parents and caregivers to do to prepare children to learn to read" (p. 824).
- **Avoid ultraviolet (UV) damage**: use sensible sun protection measures such as sunglasses

and a hat, to reduce the harmful effects of the sun's rays, particularly between the hours of 10 a.m. and 3 p.m. (OAA, 2013e, p. 4).

- **Eat a nutritious diet**: adequate and appropriate food and water intake is essential for superior functioning of the visual system (Hong & Press, 2009, para. 2). Natural food high in antioxidants is important (OAA, 2013e, p. 4).

- **Be aware of normal developmental milestones**: educators, and particularly parents, must be aware of normal developmental milestones that children progress through. This will not only allow identification of signs of eye and vision problems, but also assist in ensuring that children engage in age-appropriate activities (AOA, 2013, para. 6). The *Children's Vision Information Network* (Learning to See - How Vision Develops, 2013) provides a useful overview of vision development. It is also important to note that developmental milestones may be reached 'too early'. For example, the *American Optometric Association* (AOA), warns that evidence suggests that "early walkers who engage in minimal crawling may not learn to use their eyes together as well as babies who crawl a lot" (AOA, 2013, para. 16).

- **Ensure that children have regular eye examinations**: in order to monitor visual development regular visual assessments are recommended. The *Australasian College of Behavioural Optometrists* (ACBO), recommends that children undergo visual assessment at the following times: "6 months of age; 3.5 years of age; during the first year of school; during the third year of school; in the final year of primary school; and in the last year or two of high school. This covers the major times in early life when the eyes change or when the visual demands in the individual changes" (ACBO, 2013a, para. 16).

This list is not intended to be exhaustive; however, it should provide a justified practical starting point for ensuring that vision difficulties are prevented or minimised.

Summary

Clearly, the issue of adequate visual functioning is of increasing concern in our modern society, and therefore an area of growing importance for educators due to the adverse effect it is having on children's learning. For many, the problem begins with the erroneous assumption that *vision* and *eyesight* are synonymous; while good *visual acuity* and *healthy eyes* are important, the *process* of engaging in vision must not be ignored. Educators must be aware of how they can assist students to *develop* their vision to its fullest potential. They must also have an adequate understanding of *vision problems* and the signs and symptoms of these. This will help to ensure that timely *diagnosis* and *treatment* is undertaken. In fact, it is useful for educators to be able to carry out simple *preliminary assessments*, especially in situations where providing parents with solid evidence of concerns is required. Additionally, educators must have a basic understanding of *treatment options* such as *orthoptic treatment* and *behavioural* and *perceptual therapy*. They must ensure that every step is taken to ensure that treatment programs are followed. Also, it is important that educators work *collaboratively* with parents, optometrists and other professionals to ensure the best outcomes possible for their students. Most importantly, educators must ensure that all students develop *good vision habits*, and engage in frequent and varied *movement activities* that will allow students to develop their visual system to its fullest potential. TEACH

> *The problem begins with the erroneous assumption that vision and eyesight are synonymous*

Vision for Learning (Part II) will cover: colour blindness, resources, assessment and evaluation templates.

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TRANSFORMING CLASSROOM PRACTICE

Bree Hills
Principal of Canberra Christian School
shared with
Bev Christian
Senior Lecturer, School of Education, Avondale College

Is it possible to link biblical principles and a school behaviour plan to encourage students to live in the presence of God?

Bree Hills, principal at Canberra Christian School wanted her students to grasp the idea that biblical beliefs guide how we think and act. With this thought in mind, she led her staff in developing a whole school yearly theme that encourages her students to live in the presence of God.

"There is a big difference between a Christian school and a Christian school whose teachers and students daily inspire Godly behaviour in those around them. That is the kind of school we strive to be at Canberra Christian School. However, finding fresh and innovative ways to inspire Bible values in students can be a challenge. It was with this in mind that we came up with the theme for our school this year of 'Letting your light shine for Jesus'. This theme has been included in our worship, chapel and spiritual emphasis week along with the well known children's hymn 'Let you light shine' as our school motto song for the year."

We have found that the theme made the biggest impact when we included it in our behaviour management approach/plan for the entire school. It has provided a constant reminder for students and staff that our every day behaviour reflects the nature of our Heavenly Father.

Within the behaviour management plan every time a child shows kindness, does a good deed and shines their light for Jesus in a practical way, they are acknowledged and rewarded with a blue band (inscribed with the saying 'Shine your light for Jesus').

When a student receives 3 blue bands they are rewarded in assembly with a red band and a small token (usually a book club voucher or free lunch at our canteen). Students receiving red bands are also highlighted in the school newsletter.

Students very proudly wear their bands both in and out of school time and have quickly learnt how to notice the same kind of behaviour in their friends. As our year progresses we see our school becoming a place where positive behaviour management is actually used to spread the Bible message which we feel is what makes our little school a big lighthouse for Jesus in our community."

Matthew 5:14-16
"You are the light of the world. A city on a hill cannot be hidden. Neither do people light a lamp and put it under a bowl. Instead they put it on its stand and it gives light to everyone in the house. In the same way, let your light shine before men, that they may see your good deeds and praise your Father in heaven." **TEACH**

"Only what we've done to build others up, serve them, and inspire authentic relationships with God will truly matter"

Some lessons in leadership learnt in my 44 years in education

Ross Ecclestone
Retired Principal of Epping Boys High School, Tertiary Mentor of Secondary Teachers, Sydney University, Presenter in Leadership and Management, Macquarie University, NSW

> " *School Principal-ship, it seems to me is the art of achieving more than the theories of school management say is possible* "

Looking back on his political and diplomatic career, Colin Powell, former U.S. Secretary of State, summarised his approach to leadership with a great one-liner. "Leadership," he stated, "is the art of achieving more than the science of management says is possible." When I read Colin Powell's thoughts on the art of Leadership I was struck by the similarity between his insights and my own thinking. School Principal-ship, it seems to me is the art of achieving more than the theories of school management say is possible. Similarly, leadership in the classroom is the art of achieving more than the theories of learning say is possible. This is because *leaders primarily focus on people and managers focus on task*. The bottom line in leadership has to do with personal attitudes, beliefs, relationships, feelings and values. These are the attributes that constitute the filter through which we all, leaders and those being led, make sense of the world. Rules, strategic plans and bureaucratic requirements are the tools of management. They have their place, but they are of secondary importance when it comes to the Principal's ability to influence a team of teachers and students. School Leadership can only be measured in terms of influence. No perceived influence; no Leadership.

My educational experience spanned across four states of Australia: half in SDA schools and half in the WA and NSW public systems. In the years 1989 to 1995 I was a District Inspector of Schools in S.W. Sydney, and later was the Director of Schools in the Hills District in Sydney's N-W. From 1995 to 2006 I had the privilege of being the Principal of Epping Boys' High School, Sydney.

It is said that teachers are life-long learners. As I look back over my personal and working life it has certainly been the case for me. As a classroom teacher I learnt much from my students. As a Principal I learnt much from the teachers I sought to lead. As an Inspector and Director I gained invaluable insights into those things that really mattered in schools. I viewed first hand practices that led to success and I saw behaviours that resulted in bringing a school to its knees. I believe it was these experiences that provided me with a rich tapestry on which to draw during my eleven years as Principal at EBHS.

In this brief article I seek not to canvass or decry the latest theories of management, but to draw together the strands of what seem to me, after 44 years, to be the essence of practical leadership. I would argue that Powell's lessons are really timeless principles. There are several instances where I particularly liked his turn of phrase and I confess to borrowing a number of these gems.

May I share my *Ten Lessons of Leadership* with you.

Lesson 1
The day teachers and students stop bringing you their problems is the day they cease to regard you as their leader; they have either lost confidence in you, or concluded you do not care. Either case is a failure in Principal-ship.

Teachers will cease to bring you their problems when:
1. you or your administrative staff erect barriers or establish filters that make access difficult; or
2. a climate is fostered where to seek advice from "the boss" is perceived as indicative of weakness or incompetence; or when
3. allocation of blame replaces genuine assistance in the search for rational solutions.

The climate for healthy problem solving is created when mistakes by others are turned from negatives into positive learning experiences. It is enhanced when the leader himself readily acknowledges mistakes, models problem analysis and engages in group problem solving.

**Question 1.
Are you approachable?**

Lesson 2

An amazing amount of expert opinion and elitist theory crosses our desks daily. Remember "experts" often possess more data than judgement and "consultants" can be so inbred that they bleed like haemophiliacs when they are nicked by the real world.

Read widely, listen to consultants, learn new skills, seek mentors but remember, leadership does not result from blind obedience to anyone. This lesson is a double edged sword. Equally we should not expect blind obedience from those we seek to lead. Encourage your team to challenge you. It is worth noting that the day you have a "yes man" on your staff one of you is redundant (and here I borrow one of Powell's gems).

Question 2a.
Do you challenge expert and elite opinion?

Question 2b.
Do your teachers feel comfortable enough to challenge you?

Lesson 3

You do not know what you can get away with until you try.

There are two philosophies in leadership:

One says;
"If I have not explicitly been told **yes** to an idea, I can't do it."

The other says;
"If I have not explicitly been told **no**, I can try it."

The latter leads to creative, vibrant leadership. The former is characterised by dull maintenance of the status quo. Good Principals take risks. If you wait for permission to do everything you will likely do nothing.

Another aspect of this same lesson is the tendency some Principals have of waiting for 100% of the relevant data before they will act. In refusing to act until all the relevant facts are totally clear we may avoid risk, but we also replace action with analysis. Powell calls it "analysis paralysis". You have no doubt heard it said that it is easier to ask for forgiveness than to ask for permission. Try it, it works!

Question 3.
Do you suffer from Analysis Paralysis?

Lesson 4

Never avoid looking below surface appearances for fear of what you may find. You cannot solve problems you do not know about.

So many in leadership opt for the comfort of subscribing to the "If it ain't broke don't fix it" syndrome. Often this is a veiled excuse for laziness and lack of action.

This lesson fits well with lesson one. When you have open relationships and communication with teachers, students and other staff, they will draw your attention to matters that require fixing and of which you were unaware. You care for them; they watch for you.

Question 4.
Do you know or care what is really going on in your school?

Lesson 5

Organisational Charts, Official Titles, Action Plans, Five - year Targets and Theories of Management, on their own, do not achieve anything. Caring is the glue that holds things together.

Have you ever noticed that teachers will often readily commit to and emulate certain individuals, who on paper, have little or no status?. Why? Because they are perceived as talented caring people! Good Principals are not threatened by such people, they value and nurture them, because their pizzazz, passion, drive and genuine empathy is a powerful and positive influence in the school. Regardless of their position on the organisation chart or their official title they are key people in establishing a climate of achievement.

Question 5.
Do you gather talented, caring people around you, or do you slavishly adhere to the formal line of command?

Lesson 6

Successful Principals are not overly dependent on the latest management fads and stereotypes - they have learnt the art of Situational Leadership.

This lesson was graphically brought home to me some years ago when visiting a principal for the purpose of his annual Performance Management

It is worth noting that the day you have a "yes man" on your staff one of you is redundant

Review. Bill (not his real name) welcomed me and after pleasantries proudly produced a glossy *Five Year Plan*. I acknowledged it as being very professionally produced. I also recognised that it very closely reflected what was then regarded as the latest recipe for the *Self Managed School Plan*. Our conversation went something like this:

Me: I follow the plan Bill. It is well written and it comprehensively addresses all the major areas one would expect. Since you are now in your second year of this plan tell me what has happened so far.

Bill: We have created the eight core committees representing all the stakeholders. (The jargon was perfect.)

Me: Great Bill. However, I would like you to share with me what you regard as the most significant development that has taken place.

Bill: I scheduled meeting times and all eight committees have met fortnightly and here are the minutes of every action taken.(He handed me a very comprehensive file)

Me: The organisation is impressive Bill but what actually happened in terms of the quality of teaching, staff morale and student results?

> *Great Principals are almost always great simplifiers. They can cut through argument, debate, political correctness, pessimism and cynicism*

This conversation continued as we probed and explored each facet of the plan. It soon became very obvious nothing had changed. Staff morale and the reputation of the school in the community was languishing. Student results were below standard. Some faculties were teaching from ten-year-old programs.

Bill had failed to grasp that the present situation in his school demanded innovative action, not incessant faculty talk producing glossy plans and window dressing. Bill's plan was an impeccable reflection of the latest theory of management in terms of process, jargon, rules, resource allocation and finances but it failed to result in any appreciable improvement in the key issues concerning the quality of teaching, staff morale and student engagement.

Question 6.
Do your school plans reflect the real needs of your school community?

Lesson 7
Never let your ego get so close to your position that when it goes, your ego and self worth go with it.

A healthy sense of "self" is important to all of us. Our sense of self worth is constantly developing from childhood through to old age. For example, the young Ricky Ponting lived entirely for cricket. However, by the time retirement came from representing Australian cricket and holding the Australian cricket captaincy, Ricky could see himself in other roles beyond cricket. Contrast this with several notable Olympic swimmers. Psychologists call this "ego differentiation", to emphasise the need to achieve positive self-concepts based on pursuits and interests beyond those of "the job". Ego differentiation is important to the role of school leadership.

Change in direction is an inevitable part of life and career. Sometimes it can be threatening and unpleasant, but always remember God has a habit of opening alternative doorways before you even realise the current one is closing. I have experienced this lesson in both church and secular employment. In both situations I was blessed with new challenges, new friends and increased job satisfaction.

Question 7.
Is your self-value defined by your position?

Lesson 8
Perpetual optimism is catching ; so is pessimism and cynicism.

Optimism is an attitude of mind; a way of looking at life and the big picture. This was exemplified by the Master Teacher when he asked, 'How many loaves and fishes do we have?' The response was 'not many; just a few.' 'Great,' said the Master Teacher, 'let's get to and share it all around.' And thousands went home that day filled and satisfied. Furthermore, there were ample leftovers! In other words, optimism amplifies and expands.

In all my years of experience I never saw a really successful pessimist and I never saw cynicism produce a positive result. What I have noticed great Principals are almost always great simplifiers. They can cut through argument, debate, political correctness, pessimism and cynicism. They have the knack of optimistically presenting simple, practical solutions that can be easily understood.

Question 8.
Are you known for your simple optimistic solutions?

Lesson 9
The value of a *"Critical Friend"* is inestimable.

One of the most valuable lessons that I have learnt in my experience is the paramount importance of having a "critical friend". A teacher, a parent, a deputy principal, a head of department or someone who understands your role and someone whom you trust and in whom you may confide. This special person needs to be someone you respect for their intelligence, judgement and capacity to anticipate. They need to have drive and initiative, but above all they need to be someone who is loyal and acts with integrity not self-interest. When recruiting, the successful Principal has attempted to surround himself/herself with such people rather than show-ponies with unbridled ambition.

Question 9.
Have you cultivated a loyal colleague who can act as a "critical friend"?

Lesson 10
The Principal need not be a grim workaholic; rather, have "fun" in your command.

The hectic pace of school leadership sometimes threatens to overwhelm and seems to demand we run at a breakneck speed. Resist this pressure. Spend time with family. Spend time with teachers. Get to know as many of your students as is possible. Principals are not pretentious professionals who occasionally descend from their ivory towers to pontificate, gesticulate and otherwise try to influence the performance of an imagined grand orchestra. They are people who care about and spend time with their teachers and students. Use that time to introduce fun into your administration.

A last word. A Principal's role, like any leadership role, will at times be lonely. Sometimes the need for tough unambiguous decisions may temporarily isolate you from the rank and file. Perhaps, for how long, depends on whether your school community perceives you as a leader who cares for people or majors in tasks and structure. **TEACH**

Question 10.
Did you have any fun today?

Editors Note
A suggestion (agreed to by the author):
1. Copy this page and cut off the My Leadership - 10+ Personal Reflections.

2. Place the list in a personal space where you will be frequently reminded of these important principles.
3. Assess your leadership traits by creating a score based on a Likert-like scale for each item – Infrequently = 1, Sometimes = 2, Usually = 3, Always = 4.
4. Include progressive personal and collegial assessments in your performance audit.

My Leadership – 10+ Personal Reflections

#	Reflection	1	2	3	4
1.	Am I approachable?	1	2	3	4
2.	Do I challenge expert and elite opinion?	1	2	3	4
	Do my teachers feel comfortable enough to challenge me?	1	2	3	4
3.	Do I suffer from Analysis Paralysis?	1	2	3	4
4.	Do I know or care what is really going on in my school?	1	2	3	4
5.	Do I gather talented caring people around me?	1	2	3	4
	Do I slavishly adhere to the formal line of command?	1	2	3	4
6.	Do my school plans reflect the real needs of the school community?	1	2	3	4
7.	Is my self-value defined by my position?	1	2	3	4
8.	I am known for my simple optimistic solutions?	1	2	3	4
9.	Have I cultivated a loyal colleague who can act as a "critical friend"?	1	2	3	4
10.	Did I have any fun today?	1	2	3	4

*The key:
Infrequently = 1, Sometimes = 2,
Usually = 3, Always = 4.

> *Principals are not pretentious professionals who … pontificate, gesticulate and otherwise try to influence the … grand orchestra. They are people who care about and spend time with their teachers and students … to introduce fun*

TEACH[R]

Faith formation: Perceptions of primary and high school students in Australian Adventist Schools

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Key words: faith formation, spirituality, Adventist Encounter Curriculum, religious education

Abstract
Faith formation is a topic of considerable interest for those involved in Christian education. In this quantitative investigation, 580 students from Years Four, Six, Eight and Ten from eleven Adventist schools in Australian were surveyed to determine their perspectives of their own faith formation in four areas of their lives: *Vision*, *Gospel*, *Lordship* and *Presence*. Additional items measured student satisfaction with their Biblical Studies classes. The results indicated that students, on the whole, were positive about their faith formation. Trends revealed that younger students overall were more positive towards their faith and Biblical Studies classes than high school students with a gradual decline in levels of agreement with survey items as the Year levels increased.

> *The term faith formation or faith development has been adopted rather than the less precise term, spiritual formation*

Context and purpose
The total population of children educated in Christian schools in Australia has been increasing steadily over the past two decades (Independent Schools Council of Australia, 2013). Parents are attracted to Christian Education for many reasons including the quality of the learning and teaching, a well balanced program and the strong emphasis on values (Beamish & Morey, 2012). For some, their own Christian beliefs and their desire for their children to learn in a Christian atmosphere are key factors. For these parents the Christian ethos of the school and the religious education curriculum it follows are of prime importance (Beamish & Morey, 2012). Many Christian schools offer a religious education curriculum as part of the regular school program. While these differ in approach and implementation, each seeks to connect students with God in a way that builds a relationship with him. This study was intended to inform the key stakeholders of Adventist Schools in Australia and New Zealand of the perceptions of students in the area of faith formation across a spread of ages and their attitudes toward the Adventist Encounter Curriculum.

Background information
Spirituality and faith formation
The term spirituality is broad and challenging to define (Nazar & Kouzinkanani, 2013); even more so when applied to children or adolescents. Once the domain of religious belief systems in both the eastern and western worlds, the term spirituality has been continually widening to become inclusive of individuals who do not claim any religious affiliation (King, Clardy & Ramos, 2014; Hay & Nye, 2006). Representative of these views is Mata (2014) who defines spirituality as "an innate, human characteristic that allows us to connect with transcendence and/or the divine and feel part of the universe. Spirituality thus encompasses the individual capacity and the essence of life, providing humans with a greater consciousness and more profound understanding of being" (p. 24). Supporting this view of self-transcendence and connectedness are Borgman (2006), Kline (2008) and King et al. (2014) who allude to the quest for the sacred and the feelings and behaviours that accompany it as the essence of spirituality.

While these broad definitions of spirituality touch on the concept of the sacred or divine, they stop short of acknowledging the supreme God. For this reason the term faith formation or faith development has been

adopted by many Christian denominations and is used for this investigation, rather than the less precise term, spiritual formation which has multiple meanings.

Faith formation as a term describes a process occurring in an individual who develops a relationship with a deity. For those who hold a Christian worldview, this deity is God, although it is acknowledged that adherents to all belief systems practise faith (Fowler & Dell, 2006). Fowler's early work places faith development or formation as a framework for knowledge and understanding about God or a higher being and the resulting influence of this understanding on one's values, beliefs, purpose and relationships (Fowler & Dell, 2006). Several models of faith development exist in the literature. Westerhoff and Fowler (Fisher, 2010) both propose a number of stages in the faith journey, suggesting that faith formation is linked to human development. Not all faith formation models are linear (Ault, 2001), though most do allude to chronological stages in the life of an individual, and have roots in Piaget's stages of cognitive development (Feldman, 2004), Erickson's Stages of Life Theory and Kohlberg's Moral Development Theory (Fisher, 2010).

Faith formation does not occur in isolation, although Allen (2012) argues for a "default intuition that God exists" (p. 71) when it comes to young children. Nazar & Kouzinkanani (2013) posit that "despite widely diverse concepts of God [held by children], there is a characteristic conviction of a personal relationship with some external, transcendent power" (p. 1), a position supported by Ratcliff & May (2004). Although this conviction is a starting point for faith formation, the process relies in part, on knowledge that comes primarily from the social-cultural setting as children learn about faith within the context of an organised religion (King et al., 2014), from family members, significant others and peers (Nazar & Kouzinkanani, 2013; Christie & Christian, 2012; Lawson, 2011; Pettit, 2008, Haight, 2004). One of these social-cultural influences is the school, and when it is a Christian school, the impact of faith and values on adolescent students is enhanced (Gane, 2013). Biblical Studies' teachers are central both to Christian schools and to the faith formation of students. Teachers can positively influence children's perceptions of God (de Roos, 2006) and need to be skilful with explaining challenging concepts in alternative ways (Court, 2010). In addition, Court (2010) points out that listening in respectful ways in order to understand students is also a high priority, and further posits that as young children grow intellectually, their pre-intellectual concepts of God are replaced with more sophisticated concepts. Therefore, unless authentic examples of mature faith are modelled, relationships

with God may flounder, even though biblical knowledge is increasing.

In a study of adolescent spirituality that included diverse belief systems and participants who were strong adherents to their faith, King et al. (2014) discovered that adolescents ascribed their fidelity to a worldview consisting of beliefs, morals, values and purpose to their religious beliefs; a finding that has implications for Christian education.

Faith formation curriculum in Christian education

It has been a long held premise that Christian education serves a dual purpose, to educate both for now and for eternity. The practice of nurturing faith formation alongside a more traditional curriculum is evident in the documentation of Australian Christian schools, and is indicative of the higher purpose that each system espouses (Cairney, Cowling & Jensen, 2011; Roy, 2008; Edlin & Thompson, 2006).

Within a school culture where relationships, ethos and extra curricula activities all contribute to faith formation (Roy, 2008), the Biblical Studies or Faith Formation curriculum also plays a significant role. Jackson (2011) takes Frame's (2010) model of Lordship, drawn from 1 John, to identify three essential components of faith formation that should be addressed by a Biblical Studies curriculum. These are knowledge of the gospel, heart assent to the gospel and commitment to living a transformed life, all built on a strong biblical foundation. Newton (2014), in his model, aligns with Frame (2010) but labels the essential components as mind, emotions and will. A third model by Court (2010) explores the dilemma of combining systematic biblical learning and inquiry with nurturing a faith relationship with God. Court (2010) focuses on the cognitive, practical/moral and spiritual aspects of faith formation, and proposes a new application for Vygotsky's Zone of Proximal Development in which the innocent faith of children intermingles with biblical knowledge, and mature concepts emerge without destroying intuitive faith. She maintains that this process, which encourages both the cognitive and imaginative participation of learners, will both build biblical knowledge and nurture faith.

The ages that children traditionally attend school are the years when they are forming beliefs about themselves and the world. George Barna (2003), researcher for Christian ministries identifies the ages five to twelve as the most impressionable for developing ethical and religious beliefs, values and attitudes, and furthermore has found that the likelihood of children accepting Christ as their Saviour declines during and after adolescence. Another possible factor impacting on faith formation is gender. The evidence in this area is scant, and relates mainly

> *Unless authentic examples of mature faith are modelled, relationships with God may flounder, even though biblical knowledge is increasing*

to moral or ethical development rather than beliefs per se, but posits that females have a higher operational level of moral judgement (White, 1999), which would indicate the ability to transfer beliefs into action.

In an attempt to do more than merely add biblical knowledge to the lives of students, the Adventist Encounter Curriculum has deliberately sought to foster faith formation in four areas of the child's life: *Vision*, *Gospel*, *Lordship* and *Presence*, an idea that resonates with Jackson's (2011) belief that religious education "is about God speaking to his image and revealing how we were designed to live as God's image, in God's world, God's way" (p. 64).

Faith formation and the Encounter Adventist Curriculum

The Adventist Encounter Curriculum adopts a fourfold approach to faith formation. Building on the Ben Maxson's (2002) model, four domains of faith formation: *Vision*, *Gospel*, *Lordship* and *Presence*, are intentionally built into a transformational planning framework. Each domain adds an important element to the curriculum and is structured to take students beyond the acquisition of information and into the realm of formation (Cobbin, 2012).

The focus of the *Vision* domain is creating an accurate picture of God and His character, actions and relationship to humanity. An accurate picture of God is crucial to faith formation as students will not be attracted to a God who is portrayed as vindictive, inconsistent or distant. Perhaps this is why Allen (2012) presents a compelling case for teaching the characteristics of God starting at an early age. Young children speak of God "in a literal manner, with very little symbolism present" (Collins, Devenish, Moroz & Reynolds, 1999, p. 80). Collins et al. (1999) also highlight the diminishing belief in God as creator and changing perceptions in the humanness of God as children grow.

The *Gospel* domain covers what Jesus Christ has done and is doing in the lives of individuals. It includes an understanding of the nature and origin of sin, the ultimate sacrifice of Jesus Christ on the cross, and the resulting gift of eternal life. An understanding of sin is foundational to an understanding of forgiveness and grace, and Andersen (2011) points out that the concept of sin is "intellectually uncomfortable, but profoundly important" (p. 53). Anderson's view is supported by Sisemore (2004) who believes that children should be taught sensitively and biblically in order to combat the "symptoms of sin" (p. 230). As teachers guide students to a greater understanding of the biblical metanarrative, forgiveness and grace can be understood in their fullness, and acceptance of Christ's sacrifice becomes a reality.

> *The Adventist Encounter Curriculum has deliberately sought to foster faith formation in four areas of the child's life: Vision, Gospel, Lordship and Presence*

The *Lordship* domain focuses on commitment to letting God lead in the life. It moves past understanding to acceptance and becomes a lifestyle choice. As Maxson (2002) puts it, "Lordship is intimacy with God through the indwelling Christ integrated into daily life. It is the result of accepting Christ as Saviour, Owner, and present within us through the ministry of the Holy Spirit" (p. 2). This domain deals with a personal devotional life and includes surrendering the will to Christ, prayer life and time spent building a relationship with God through Bible study. It is a process of 'building disciples'. A disciple, according to Matthew 28:16-20 is one, who having pledged allegiance to Christ, lives with and learns from the Lord with the ultimate aim of introducing others to the Kingdom of Grace and transforming lives. It is not just about faith, but also about faithfulness (Dunnill, 2006). This concept of biblical discipling is supported by Maxson (2002) who describes it as "the art of shaping the life of an individual into growing partnership with God" (p. 3) and integrating Christ's lordship into every area of daily life. Lordship is a progression growing out of the gospel news of salvation, and leads into the final domain of *Presence*.

The *Presence* domain indicates integrating the attendance of God into every event of an individual's life. This domain of faith formation has been blended with *Lordship* by some authors (Newton, 2014; Jackson, 2011) but can be distinguished by placing the focus on an invisible but palpable relationship with God, which guides thoughts, and ultimately actions. Graham (2009) expresses this idea succinctly as "closing the gap between the beliefs that we profess and those that control what we do" (p. 11). It includes the realms of relationships, worship and service. This idea is consistent with the findings of King et al. (2014) who posit that young people perceived spirituality as more than merely subscribing to an ideology, but also behaving in a manner consistent with one's held beliefs, including "intentionally making a contribution through acts of service or acts of leadership" (p. 200).

The literature indicates that a sense of spirituality is widespread among school age children and that faith formation is a multi-faceted process occurring over a period of time. Although sometimes linked to chronological age, it is also viewed as the development of different components within an individual, rather than stages to attain. It is evident that a Biblical Studies curriculum should seek ways to foster rather than limit the faith formation process. Adventist Encounter Curriculum has been intentionally structured with faith formation as its goal.

Method

The investigation was conducted in eleven Adventist schools representing all states in Australia. The respondents were all students in Years 4, 6, 8, and 10 (n = 580) for whom parental/carer consent was given. As this is a longitudinal study, the year levels were chosen to avoid the NAPLAN Australian testing schedule for Years 3, 5, 7 and 9. Research procedures met the ethics compliance for Avondale College of Higher Education. At the time of the survey, all year levels had less than one year's

Table 1: Cohort by year in school and gender

year	male	female	total respondents
year 4	68	80	148
year 6	64	66	130
year 8	77	77	154
year 10	83	65	148
total	292	288	580

exposure to the Adventist Encounter Curriculum except Year 8 which had 1.5 years of exposure. The breakdown of participants by year and gender is shown in Table 1.

Students completed a survey with 56 items using a Likert scale with four levels of agreement (Strongly Disagree =1, Disagree =2, Agree =3 and Strongly Disagree =4). Items for the questionnaire were informed by existing Spiritual Assessment and Growing Disciples Inventories (Hall, Keith & Edwards, 2002; Bradford, G., 2012). A pilot survey with Year 4 and Year 8 students was administered to test the item wording. On the final survey, eight of the items identified students' perceptions of Bible classes, their teachers and school faith events, and the remaining items identified perceptions of the students' faith formation across the four domains - Vision, Gospel, Lordship and Presence (see Figure 2).

The data from the questionnaires were entered into the statistical software package IBM SPSS Statistics v21 (2012). Descriptive statistics for each domain scale were determined along with an internal reliability measure using Cronbach's Alpha. Independent groups t-test and one-way between groups ANOVA with post-hoc comparisons was run to locate any differences of significance in the data.

Additionally, the data was split by gender and the domains were examined by year level to see if there was a significant difference between the mean responses of males and females.

Results

Table 3 shows the mean, standard deviation and Cronbach's Alpha co-efficient for each of the domains. It can be seen that for the domain Vision (α = 0.915), the reliability is 'excellent' and for the other three domains the reliabilities are in the range 'good'. Therefore the domains of the survey are internally reliable.

The mean Likert score by year level and domain is shown in Table 4. In every domain there is a decrease in mean as the students progress through school.

A Oneway ANOVA was calculated to identify mean differences in responses across domains. (see Table 5). Though Table 4 shows the gradual decline of responses over years, Table 5 shows where these differences are statistically significant. The data reveal that there is a significant difference between the mean scores of Year 4 /Year 8 and Year 4/Year 10 and Year 6/Year 10 for each domain. There is even a significant difference for Year 6/Year 8 for all but the Vision Domain.

A further finding from the data was that in every year level for every domain, females answered more positively than males. Although this was consistent, the only statistically significant gender difference was for the Presence Domain in Year 10.

Particular attention is now given to items 49 – 56. The percentage of positive responses to these items is plotted in Figure 1. These items measured students' perceptions of Bible classes, Bible teachers and other school programs of a spiritual nature. Because these items were not really a domain, they are now discussed separately. All items demonstrated a similar trend towards higher agreement levels with the statement in the lower Years and declining levels of agreement through Years, 6, 8 and 10. Items 50 and 54 were the exceptions, and these will be dealt with in the discussion.

Discussion

The results of this survey, when read in the context of the literature, identify some trends and patterns of thinking that are evident in primary and secondary students in regards to their faith formation. Overall, the results indicated strong levels of agreement with central beliefs about God and salvation, and varied aspects of Christian lifestyle, with a range of mean scores from 2.74 (Agree) to 3.56 (Strongly Agree) on a four level Likert scale.

The fact that in every domain student responses became weaker in agreement as the cohort became

that in every domain student responses became weaker in agreement as the cohort became more senior is not a suprising result

Table 2:   Summary of items by category

	number of items	specific items
vision statements statements to measure the student's understanding of who God is and what He wants to do in and through him/her		
God's character	4	1–4
God's actions	5	5–9
God's relationship to me	4	10–13
gospel statements statements to measure the student's belief and understanding of what Jesus Christ has done, and is doing for him/her		
forgiveness	4	14–17
grace	4	18–21
application	4	22–25
lordship statements statements to measure the student's commitment to letting God lead in his/her life		
surrender	4	26–29
prayer	3	30–32
bible study/personal devotions	4	33–36
gospel statements statements to measure the student's commitment to integrating the presence of God into every area of his/her life		
relationships	4	37–40
worship	4	42–44
service	4	45–48
miscellaneous statements statements relating to students' perceptions of school faith formation effectiveness		
Bible classes	5	49, 52, 53, 54, 56
Bible teachers	1	51
other school events	2	50, 55

> *Though there is this significant decrease over years of schooling, the means remain strong even as the students enter adolescence*

more senior is not a surprising result given the tendency for young people to think more critically about issues as they progress through school. Indeed, one could look at the results with a certain amount of discouragement when they see students' connections to spiritual things decline over the years even though they are attending a Christian school. It has to be remembered however that in Year 6 students are just approaching Piaget's Formal Operational Stage where children begin to think in the abstract and can involve themselves in deductive reasoning and more critical thinking (Feldman, 2004). This trend also concurs with Collins et al. (1999) who posit that young children's perceptions of God are very literal, and Court (2010) who identifies young children as having pre-intellectual concepts of God which change as they grow and their thinking becomes more sophisticated. Furthermore, though there is this significant decrease over years of schooling, the

Table 3: Descriptive statistics and reliability by domain

domain	items	mean	standard deviation	Cronbach's alpha
vision	1–13	3.37	0.66	0.915
gospel	14–26	3.18	0.63	0.886
lordship	27–37	3.02	0.63	0.838
presence	38–48	3.03	0.54	0.778

Table 4: Mean likert score for each domain by year level

domain	items	year 4	year 6	year 8	year 10
vision	1–13	3.56	3.49	3.30	3.17
gospel	14–26	3.34	3.34	3.15	2.94
lordship	27–37	3.29	3.15	2.91	2.74
presence	38–48	3.33	3.10	2.88	2.82
school*	49–56	3.27	3.06	2.92	2.64

*made up of miscellaneous questions and not considered a domain but included for analysis

Table 5: ANOVA showing mean difference between year levels by domain

domain	items	year 4	year 6	year 8	year 10
vision	1–13	3.56	3.49	3.30	3.17
gospel	14–26	3.34	3.34	3.15	2.94
lordship	27–37	3.29	3.15	2.91	2.74
presence	38–48	3.33	3.10	2.88	2.82
school*	49–56	3.27	3.06	2.92	2.64

*made up of miscellaneous questions and not considered a domain but included for analysis

declines during and after adolescence. Therefore this domain should be given special consideration during the primary school years and regular opportunities provided for children to accept Jesus Christ as their Saviour. This finding also suggests the need for continued faith development scaffolding through high school so increased biblical knowledge can enhance intuitive faith (Court, 2010).

The gender differences, although minimal, were consistent. Females scored higher levels of agreement in all four domains with a significant gender difference evident in the Presence domain. As this domain is described as the student's commitment to integrating the presence of God into every area of his/her life, it aligns with White's (1999) research on ethical and moral development.

The final six items on the survey aimed to discover students' perceptions of Biblical

Children need to be introduced to Jesus and make a decision for Him before they leave primary school

means remain strong even as the students enter adolescence. This is even more so when one considers that many of the students who responded to the survey may be in a Christian school, but they do not all come from a Christian family.

The fact that children need to be introduced to Jesus and make a decision for Him before they leave primary school is further evidenced by the data in Table 4. This dealt with themes of salvation and acceptance of the sacrifice of Jesus Christ. The declining agreement trend across year levels supports Barna's (2003) finding that the likelihood of children accepting Christ as their saviour

Studies classes, their Bible teachers and faith-based school events. As within the domains, lower year level students responded more positively to the statements, *I enjoy what I learn in Bible classes, my Bible teacher is helping me to develop a relationship with God, the activities I do in Bible classes help me to understand what God is like, and I learn a lot during Bible classes*, with a gradual decline in agreement as Year levels increased. While this trend reflects developmental stages (Court, 2010; Feldman, 2004), and possibly acknowledges sociocultural influences (Nazar & Kouzinkanani, 2013; Christie & Christian, 2012; Lawson, 2011;

Pettit, 2008, Haight, 2004), it also raises awareness of how children's perceptions may change, especially as they enter adolescence.

The response to item 54: *I wish Bible classes were more relevant to me and my life*, showed the greatest uniformity amongst the cohorts. They uniformly disagreed that Bible classes should be more relevant to their lives. Unfortunately this is difficult to interpret because it could either mean that Bible classes are already relevant to their lives and they do not need them to be any more so, or it could mean that Bible classes are not that relevant, but they are happy for it to be that way. In the next survey, this item will be reworked as: *Bible classes are relevant to my life*.

Item 50 is written in the negative and thus produces a dip on the plot in Figure 1. Clearly students are disagreeing that compulsion is their main reason for attending chapels, which is a pleasing result. Again it is the Year 10 cohort who, though generally disagreeing that they attend chapel because it is compulsory, are not as strong in that response as the other year levels. All year levels demonstrated a peak in the number of students who strongly agreed with the statement (Item 55) *I feel closer to God during special Weeks of Worship*. This is a positive result which supports the notion that the sociocultural aspects of the school program (Nazar & Kouzinkanani, 2013; Christie & Christian, 2012; Lawson, 2011; Pettit, 2008, Haight, 2004), complement the Biblical Studies curriculum in

> *Taken as a whole, the findings … highlight the importance of intentionally scaffolding children in their faith formation*

growing the faith of students.

Taken as a whole, the findings support Court's (2010) application of Vygotsky's Zone of Proximal Development and highlight the importance of intentionally scaffolding children in their faith formation.
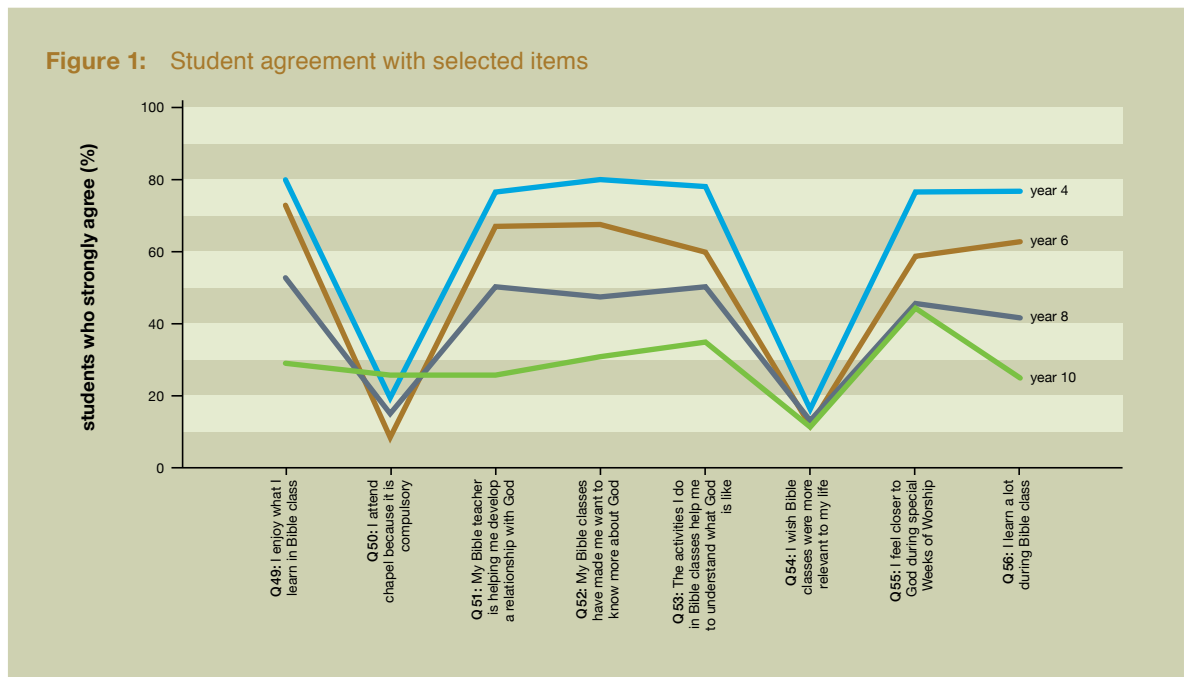
Recommendations

There are three recommendations rising out of this investigation, all related to future research. It is recommended that the results be tracked biennially (next in mid 2015), to develop a faith formation profile of specific cohorts as they advance through the grades. It is also recommended that the gender difference identified in the *Presence* domain be a further topic for investigation. In addition, this was a quantitative investigation which revealed perceptions of students. What it did not reveal was why the students responded as they did. Therefore the final recommendation is to supplement the quantitative data collection of the next survey with qualitative data that explores why students gave certain responses.

Conclusion

Overall, the results from this survey demonstrate that the students' perceptions of their faith formation at all year levels were generally positive. Year 4 students had greater levels of agreement on most items with a gradual decline in agreement through Years 6, 8 and 10. Gender differences were minimal in all domains

Figure 1: Student agreement with selected items

students who strongly agree (%)

Q49: I enjoy what I learn in Bible class
Q50: I attend chapel because it is compulsory
Q51: My Bible teacher is helping me develop a relationship with God
Q52: My Bible classes have made me want to know more about God
Q53: The activities I do in Bible classes help me to understand what God is like
Q54: I wish Bible classes were more relevant to my life
Q55: I feel closer to God during special Weeks of Worship
Q56: I learn a lot during Bible class

year 4
year 6
year 8
year 10

except for the domain *Presence* where females were significantly higher in agreement. The importance of creating opportunities for primary school children to accept Jesus Christ as their saviour was identified, with continued scaffolding through high school suggested. This investigation will be continued into the future on a wider scale to try and determine the source of weakening levels of agreement in senior students. **TEACH**

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The importance of creating opportunities for primary school children to accept Jesus Christ as their saviour was identified

TEACH[R]

Struggling to stay awake: The sleep patterns of Adventist secondary school students

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Keywords: Sleep, Adolescents, Alertness, Performance

> *The nature of modern life, particularly the growing use of screens for work, communications and entertainment, has deprived most people … a healthy night's sleep*

Abstract

Sleep deprivation studies indicate that sleep is vital to emotional, physical and behavioural wellbeing. This study presents the results of a survey in which 945 students in Seventh-day Adventist secondary schools responded to questions about the length and quality of their sleep. The study found that: almost one half of the students were at risk of falling short of the recommended number of hours of sleep per night; toward one in every five students were averaging six or fewer hours sleep per night; the quality of sleep (in terms of better sleep habits) and the resulting levels of daytime alertness were clearly linked to having a permanent, personal space for sleep; and finally that academic performance was strongly related to measures of daytime alertness and measures of the quality of sleep habits.

Introduction

Sleep is such a common behaviour that it is often treated with disdain. Never-the-less sleep is of great importance. This article discusses the nature of sleep, reviews the literature on sleep deprivation and examines the importance of sleep to learning. The article presents the findings of a survey exploring the sleep habits of adolescents enrolled in Seventh-day Adventist secondary schools across Australia and examines the students' perceptions of their own sleep habits.

The nature of sleep

Sleep is a reversible state of altered consciousness in which the body is often prone, the eyes closed, and in the words of Caskadon and Derment (2011, p. 16) there is "perceptual disengagement from, and unresponsiveness to the environment". Despite this, the brain remains surprisingly active during sleep and this activity allows electroencephalograms (EEGs) to be produced (Winston, 2003).

For human beings, as with most other mammals, sleep follows a regular rhythmic daily pattern known as the circadian rhythm (Caskadon & Derment, 2011). Generally, humans are awake and alert during the daylight hours and sleep at night. Most adults sleep for approximately one quarter to one third of a 24 hour period. Children and young teenagers sleep for longer periods than adults. However, the nature of modern life, particularly the growing use of screens for work, communications and entertainment, has deprived most people in the developed world, children to adults, of what would be considered to be a healthy night's sleep (Olds, Ridley, & Dollman, 2006; Van den Bulck, 2004).

Within periods of sleep there is yet another pattern. Sleep cycles between periods of deep sleep followed by periods of lighter sleep (Caskadon & Derment, 2011). REM is the acronym for 'rapid eye-movement'. In deep sleep the eyes are still and hence it is also known as non-REM sleep (NREM sleep). On the other hand light sleep is characterised by rapid eye movement and it is known as REM sleep. REM sleep involves rapid, busy brain activity that gives rise to high frequency, low amplitude waves that appear

on an EEG like jagged bad handwriting (Winston, 2003).

On falling asleep following a normal period of wakefulness, human beings quickly progress into an initial period of NREM sleep that is likely to extend upward to an hour and half (Caskadon & Derment, 2011). This is followed by a short period of REM sleep during which dreaming often occurs. During the course of a night's sleep an individual may progress through a number of NREM and REM sleep cycles in which each cycle becomes progressively shorter.

Sleep-wake circuits in the brain

There are two distinct but interactive neuronal (brain) circuits that respectively control the alert state of wakefulness and the quiescent state of sleep (Schwartz & Roth, 2008). These two circuits form an 'on-off switch' in that activation of one circuit substantially dampens the activity of the other (Saper, Chou & Scammell, 2001). The positioning of the 'on-off switch' is broadly controlled by a 'master clock' that is sensitive to the changing patterns of light and dark in each day (Saper, Cano & Scammell, 2005). Both neuronal circuits involve differing arrays of chemical messengers (neurotransmitters) and prolonged activity of one circuit changes the balance within these messengers that toggles the switch between wakefulness and sleep creating a homeostatic effect (Refinetti, 2006; Saper, Chou & Scammell, 2001). So for example, adenosine is a metabolic product of a neurone's energy process. Its concentration increases during periods of prolonged wakefulness. But adenosine is also a neurotransmitter that is a component of the sleep cycle (Basheer, Porkka-Heiskanen, Strecker, Thakkar & McClarley, 2000). Its rising concentration during wakefulness helps to trigger the onset of the sleep cycle.

Because of its ubiquity, sleep is regarded as beneficial. However, in order to understand the benefits of sleep attention should be first drawn to the effects of sleep deprivation.

The Effects of sleep deprivation

The effects of extreme sleep deprivation have been long known by military authorities who have used it to break the will of those subjected to intense interrogation (Winston, 2003). After long periods of sleeplessness these unfortunate individuals become disoriented and their mental states fragmented. This is done in the hope that they will divulge information that in a normal state of mind they could well withhold. In reality, sleep deprived interrogatees often reach a point where they are willing to say anything that will permit them to lapse into the soothing state of sleep (Blagrove, 1996).

Even modest sleep deprivation has been linked to increased daytime sleepiness and to enervating mood states (Pilcher & Huffcutt, 1996; Talbot, McGlinchey & Harvey, 2010) including reduced ability to control irritability, frustration and anger (Kahn-Greene, Lipizzi, Conrad, Kamimori, & Kilgore, 2006). Sleep deprivation has also been linked to increased measures of stress, anxiety and depression (Kahn-Greene, Kilgore, Kamimori, Balkin, & Kilgore, 2007) and has been causally implicated in such health issues as increased allergic responses (Irwin, Wang, Campomayor, Collado-Hildago & Cole, 2006), obesity (Patel & Hu, 2008), diabetes (Knutson, Spiegel, Penev & Van Cauter, 2007) and circulatory illnesses including hypertension (Kato, Phillips, Sigurdsson, Narkiewicz, Pesek, & Somers, 2000). Research indicates that sleep deprivation reduces performance on psychomotor tasks (Edinger, Means, Carney & Krystal, 2008; Pilcher & Huffcutt, 1996) such that psychomotor performance after 24 hours without sleep can be so impaired as to be comparable to alcoholic inebriation (Weinger & Ancoli-Israel, 2002). Sleep deprivation appears to also diminish performance on such cognitive tasks as abilities to maintain focussed attention, to comprehend information, to plan, to reason and to form judgements (Harrison & Horne, 2000; Van Dongen, Maislin, Mullington & Dinges, 2003). Specifically, sleep deprivation has been linked to major deficits in the ability to encode information into memory (Walker & Stickgold, 2006). Walker and Stickgold (2006) also found that the metacognitive abilities of their sleep deprived participants were so impaired that they were not even aware of these deficits.

Research suggests that children and young adolescents are particularly susceptible to sleep deprivation and, for them, the emotional, cognitive and psychomotor effects as noted above are accentuated (Talbot, McGlinchey & Harvey, 2010). For as long as there have been schools, teachers were all too aware that the effects of chronic tiredness, irritability, frustration, inability to focus, poor comprehension and diminished coordination will, either individually or collectively, inhibit learning. It is no surprise that sleep deprivation among school children has been directly implicated in reduced learning ability and poor academic performance (Curcio, Ferrara & De Gennaro, 2006).

The economic cost of sleep deprivation

In 2004 Access Economics examined the impact of sleep deprivation on the Australian national economy. The authority noted that sleep deprivation caused a decline in personal health, inefficiencies in the work place including accidents and lost work hours and was implicated in an array of domestic and traffic accidents. The total annual direct and indirect cost

> *Children and young adolescents are particularly susceptible to sleep deprivation and, for them, the emotional, cognitive and psychomotor effects ... are accentuated*

of sleep deprivation was estimated to be 0.8% of the Gross National Product ($6.2 billion at that time). If the same statistic held in 2014 the national cost of sleep deprivation would be near to $30 billion.

Sleep as a restorative process

The activities of a busy day produce the sense of tiredness and the desire to sleep. It is argued that the activities of the day come at a cost to the body. Waste builds up, tissues are stressed or damaged and bodily resources are depleted (Refinetti, 2006). As a result, sleep provides opportunity for much of the body's restorative processes to occur. These include the removal of waste, the supply of nutrients, the release of hormones, protein synthesis, and the processes of growth and tissue repair.

The neuronal activity of conscious awareness also comes at a cost. An active brain demands energy in the form of glycogen and produces waste that includes adenosine. This waste becomes toxic if permitted to accumulate. Evidence is now growing that sleep also permits restorative activity to occur inside the brain itself. The Nedergaard team of researchers (Xie et al., 2013) have found that during sleep channels controlled by the glia cells inside the brain (these act as support cells to the neurones) open and permit cerebrospinal fluid to mix with the neuronal interstitial fluid (cell fluid that bathes the neurones). They suggest that this process flushes the metabolic waste from the neurones – including the accumulated adenosine. The lowered activity associated with sleep allows appropriate levels of glycogen to be restored in preparation for the following period of wakefulness. The removal of adenosine from the vicinity of those neurones associated with the arousal system primes them for the activity of the following day (Schwartz & Roth, 2008). This cleansing process suppresses the sleep trigger and helps re-establish a state of conscious alertness that is capable of focusing and maintaining attention and establishing links between immediate external stimuli and neuronal records of prior learning.

REM sleep and neural development

Brain activity characteristic of REM sleep first appears at a gestation age of about 30 weeks and dominates the sleep cycles of the foetus and the first six months of life (Graven & Brown, 2008). It takes until 9 months of age before the infant approaches the sleep proportions between NREM and REM sleep (approximately 80% of sleep is NREM) that will be roughly characteristic of later life. Graven and Brown (2008) note that persistent abnormalities in REM sleep between 30 weeks gestation age and six months result in disorders in specific sensory neural pathways. The authors argue that normal neural

Sleep is a complex behaviour that plays a part in neural development and is essential to human physiological, cognitive, emotional, and social wellbeing

activity during REM sleep is crucial to development of neural pathways through the visual, auditory and touch sensory systems. It is Siegel's opinion that neuronal activity within REM sleep is essential for "making brain connections during crucial periods of development" (Siegel, 2005, p. 1269).

There is one question that arises. If REM sleep was important during development, why does it persist in the lives of adults? Siegel (2005) argues that in adults the role of activity in REM sleep is to reverse the unconscious state of NREM sleep.

Deep NREM sleep and consolidation of long-term memory traces

Research over the past two decades has linked deep NREM sleep with memory trace consolidation within long-term storage (Ellenbogen, Payne & Stickgold, 2006; Gais & Born, 2004; Ribeiro, 2012; Walker, 2009; Walker & Stickgold, 2004; Walker & Stickgold, 2006). In particular it has found evidence that suggests that deep NREM sleep aids in the long-term stabilisation of memory traces for: life events (episodic memory traces - Hu, Stylos-Allan & Walker, 2006; Payne, Stickgold, Swanberg, & Kensiger, 2008; Van der Helm, Gujar, Nishida & Walker, 2011); 'know that information' (semantic memory traces - Tamminen, Lambon Ralph, & Lewis, 2013); emotions (affective memory traces – Chambers & Payne, 2014; Payne & Kensinger, 2011); and memory traces that coordinate and drive procedural skills (memory traces for psychomotor activities - Fischer, Nitschke, Melchert, Erdmann & Born, 2005; Nishida & Walker, 2007).

So, sleep is a complex behaviour that plays a part in neural development and is essential to human physiological, cognitive, emotional, and social wellbeing. Deep NREM sleep also is involved in the consolidation of long-term memory traces. What is recommended in terms of the amount of sleep per age? What are the current sleep habits of young people?

Adolescent sleep patterns

The Sleep Health Foundation of Australia (2011) published a table of healthful sleep requirements that suggests that teenagers should average between 8.5 hours and 9.5 hours sleep per night. However, an Australian study (Olds, Maher, Blunden & Matricciani, 2010) indicated that on school days south Australian children and teenagers (of both genders) between the ages of 9 and 17 plus years averaged just over 7 hours of sleep per night. On non-school days this rose to an average of over 8 hours of sleep per night. Further, the authors pointed out that the average of adolescent time-in-bed for South Australian teens declined by 30 minutes between 1985 and 2004. Members of the same research team then began a broader study

involving child and adolescent sleep times across the world. In a meta-analysis of 97 studies published between 1905 and 2008 that involved 690,747 subjects aged between 5 and 18 years, they found that the average hours of sleep per night progressively declined (Matricciani, Olds & Petkov, 2011). Further, they found that this decline totalled to a loss of more than 77 minutes of sleep per night over the 103 year-duration of data employed in the study.

Research Questions

Since sleep is important and sleep deprivation potentially has a significant impact on students:

1. What is the nature of the sleep patterns among the students of Seventh-day Adventist secondary schools across Australia?
2. What are students' perceptions of their own sleep habits and of their experience of daytime sleepiness?
3. What factors are related to these perceptions of sleep habits and daytime sleepiness?

Method

The sleep data were collected as a part of a larger study involving the use of a questionnaire. Respondents provided a range of knowledge of information and responded to questions concerning their sleep habits and its effects. Among these questions were two blocks of items, each set against its own Likert scale, that gave rise to the two perception scales 'Poor Sleep Habits' and 'Struggling to stay awake'. The resulting data were analysed using IBM SPSS statistical package (IBM Corporation, 2011).

Results

Respondents

Just over 1,000 students from 12 Seventh-day Adventist secondary schools spread from South Queensland to Western Australia completed the survey. Of these, there were 945 usable results. Of the 945 respondents: 454 were male, 486 were female and five respondents did not indicate their gender; 180 were aged 14 years, 307 were aged 15 years, 276 were aged 16 years, 179 were 18 years or over and three did not indicate their age; 363 indicated their religion as Seventh-day Adventist, 313 gave their religion as another Christian denomination, 96 identified as being of a non-Christian religion, 160 were of no religion and 13 did not provide a response.

Length of Sleep

Table 1 provides the number of hours of sleep as calculated from the respondents' declared times for going to bed and their declared rising times. This table indicates that 18% of the respondents were indirectly claiming as little as 6 hours sleep per night and that toward half of the respondents (46%) were getting less than the recommended number of hours of sleep per night for an adolescent. Most respondents know they are getting too little sleep. In addition, 15% felt that they rarely or never had sufficient sleep and 23% considered that they were poor sleepers. Even so, 12% of the respondents suggested that they could get by on less than the recommended number of hours of sleep for adolescents.

However, just over half (55%) of the respondents reported adequate sleep (see Table 1), more than half (69%) felt that they needed the recommended number of hours sleep per night, just over a one half (53%) felt that they usually or always got enough sleep, and 77% thought that they were good sleepers.

Are these results confusing? Yes. But they do suggest that toward one in every two students in Seventh-day Adventist secondary schools could well be at risk of having less than the recommended hours of sleep and that one in every 5 students are falling well short of what would be regarded as a healthy night's sleep. They also suggest that many students may be unsure of what an adequate night's sleep should be and that some may over-estimate the quality of their own sleep.

Domestic Stability

This study also surveyed the sleeping arrangements of the respondents. Approximately 70% of all

> *18% of the respondents were indirectly claiming as little as 6 hours sleep per night and that toward half of the respondents (46%) were getting less than the recommended number of hours of sleep*

Table 1: Hours of sleep as calculated from bed-times and rising-times

hours of sleep	male	female	total
6 hours or less	69 (16%)	97 (20%)	166 (18%)
7 hours	135 (30%)	126 (26%)	261 (28%)
8 hours	156 (35%)	179 (37%)	335 (36%)
9 hours	79 (18%)	75 (16%)	154 (17%)
10 or more hours	9 (2%)	5 (1%)	14 (2%)
total	448	482	930
missing			15

respondents indicated that they slept in the same bed every night. A further 26% were in the same bed almost every night and 5% slept in the same bed a few nights. It is possible that these two transient groups of students split their time between caregivers who live separately. Finally nine respondents indicated that they did not sleep in the same bed each night. It is possible that these students were 'couch surfing' - moving between the homes of relatives and friends. This study will later examine the effect that these different sleeping arrangements have upon the quality of sleep reported by these students.

> *5% slept in the same bed a few nights. … [and] split their time between caregivers … nine respondents indicated that they did not sleep in the same bed each night. It is possible that these students were 'couch surfing'*

Figure 1: Sleep patterns for week nights and weekend nights

$\chi^2 = 1076.8$, $p = 0.000$

Special Nature of Weekend Nights

Figure 1 provides the going-to-bed times for week-day nights and weekend nights. A glance is all that is needed to realise that the to-bed times of the weekend are considerably later than the to-bed times of the week nights. The Chi-square measure of 1076.8 (p = 0.000) indicates the strength of these differences. They suggest that within the Seventh-day Adventist school culture there is a qualitative difference between the respondents' perceptions of the week-nights and the weekend nights. Anecdotal information would suggest that school nights are for study and home activities and weekend nights are for social gatherings.
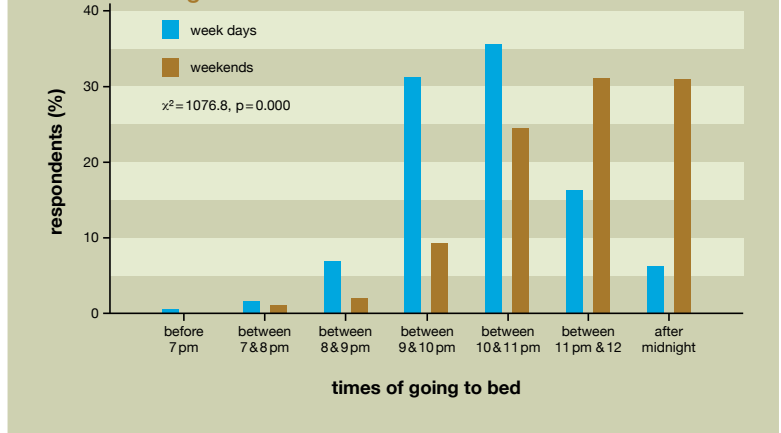
Academic performance

The literature review suggests that the amount of sleep and its quality has an impact on students' academic performance. Students were asked to give a self-assessment of their academic performance. With 75 elements of missing data, this was the one item in which respondents were most reticent to provide information. It was also a variable where respondents appeared more willing to fudge boundaries. For example, 13% of the respondents placed themselves in the lower one-third of the spread of academic achievement, 48% indicated membership in the mid one-third of the class and 39% saw themselves as belonging to the upper one-third of academic achievement.

The perception scales: 'Poor sleep habits' and 'struggling to stay awake'

Confirmatory factor analysis as applied to the two blocks of perception items produced two strong factors (see Table 2).

In this factoring process items that loaded weakly and whose presence reduced scale reliability were removed. The first factor gave rise to Scale 1 and included descriptions of behaviours that were collectively indicative of 'Poor Sleep Habits'. The second factor gave rise to Scale 2 and included descriptions of behaviours that indicated difficulty in remaining alert and awake during daytime activities. This factor was labelled 'Struggling to stay awake'. Scale scores for each factor were created by assigning each respondent the mean values for their Likert scores for the items within each of the two factors. High scores on the scale 'Poor sleep habits' represent experiences of poor sleep habits and high scores on the scale 'Struggling to stay awake' indicate real problems with remaining alert and attentive during daytime activities.

More than three quarters of the respondents reported that their experiences of sleep were 'generally good' or better. However the remainder reported sleep experiences that were 'poor' or 'very poor' (Figure 2a). More than three quarters of the respondents had little problem in remaining aware and awake during the day (Figure 2b). However the remainder indicated that they often struggled to remain awake and some even reported instances of falling asleep during daytime activities.

Causality: Poor sleep and difficulty in remaining alert

The literature presents a strong argument for a causal link between the quality of sleep and the ability to remain alert (Curcio, Ferrara & Gennaro, 2006; Pilcher & Huffcutt, 1996; Talbot, McGlinchey & Harvey, 2010). Assuming this to be so, a regression equation with 'Poor sleep habits' as the

Table 2:   Factor loadings for the scales 'Poor sleep habits' and 'Struggling with day-time sleepiness'

scale 1: poor sleep habits (α = 0.71)	loading
In the last two weeks I:	
have stayed up to at least 3 am	0.73
have stayed up all night	0.71
have slept past noon	0.60
have had nightmares or bad dreams	0.55
have gone to bed because I couldn't stay awake	0.53
have arrived at school late because I overslept	0.49
have had an extremely hard time falling asleep	0.46
have needed more than one reminder to get up in the morning	0.42
have woken too early and been unable to go back to sleep	0.41

scale 2: struggling with daytime sleepiness (α = 0.73)	loading
In the last two weeks I:	
struggled to stay awake while reading and doing homework	0.67
struggled to stay awake in class	0.66
struggled to stay awake during a test	0.66
struggled to stay awake while working on the computer	0.59
struggled to stay awake during a movie, concert, or a play	0.57
struggled to stay awake while playing video games	0.52
struggled to stay awake while travelling by bus, train, plane or car	0.51
struggled to stay awake while watching TV or listening to the radio	0.47
struggled to stay awake during face-to-face conversation	0.47

Relationships involving 'Poor sleep habits' and 'Struggling to stay awake' Analysis of variance was used to examine differences in mean values on the two scales ('Poor sleep habits' and 'Struggling to stay awake') for a variety of demographic and behavioural variables. The 95% level of confidence ($p < 0.05$) was used to determine non-chance results. Cohen's d statistic (a measure of effect size) was employed to provide a measure of the magnitude of the separation in mean values. Cohen's d statistic is the proportion of a pooled standard deviation that separates two mean values. Values of Cohen's d from: 0.20 - 0.49 are regarded as representing a small to moderate effects; 0.50 - 0.79 as representing moderate to strong effect; and anything over 0.80 as representing a large effect (Gravetter & Wallnau, 2009).

The effects of reduced hours of sleep
The data indicated that as the hours of sleep decreased in hourly increments from '10 or more hours of sleep' to 'six or less hours of sleep' the corresponding calculated mean measures on both the scales 'Poor sleep Habits' and 'Struggling to stay awake' increased (see Figures 3a and 3b). This inferred that decreasing hours of sleep were associated with increasingly poor sleep habits and with increasing instances of sleepiness during the day. The differences between the mean values were strong as indicated by the F ratios (12.00 and 8.12 respectively) and by moderately strong Cohen's d statistics. These results are consistent with expectation and therefore contribute to a perception that the two scales are valid and robust.

> *Decreasing hours of sleep were associated with increasingly poor sleep habits and with increasing instances of sleepiness during the day'*

independent variable and 'Struggling to stay awake' as the dependent variable produced a β coefficient of 0.46. This implies that a one standard deviation change in 'Poor sleep habits' will cause almost a half of a standard deviation change in 'Struggling to stay awake'. It also means that 'Poor sleep habits' will explain 21% of the variance in 'Struggling to stay awake'. This suggests a strong causal link between poor sleep habits among the respondents and their resulting difficulty in remaining alert during the day.

Gender differences
The data indicated that girls averaged slightly higher scores than boys on both the 'Poor sleep habits' scale and on the 'Struggling to stay awake' scale. While these differences were small (d = 0.27 and d = 0.26 respectively) they were not chance results (F = 16.43; p <. 001 and F = 16.75; p < 0.001 respectively).

Differences associated with religious affiliation
Figure 4 shows scores on the 'Poor sleep habits'

scale for students of different religious affiliations. This indicates that students who indicated their religion as Seventh-day Adventist had better sleep habits and had less difficulty in remaining alert than did students indicating other Christian convictions and students from non-Christian backgrounds. The differences in mean scores on the 'Struggling to stay awake' scale for students of differing religious backgrounds are not significant and could have occurred by chance.

> *Differences in mean scores on the 'Struggling to stay awake' scale for students of differing religious backgrounds are not significant*

Figure 2: Whisker plot showing the range, median and quartile measures of the scales 'Sound sleep habits' and 'Struggled to stay awake'
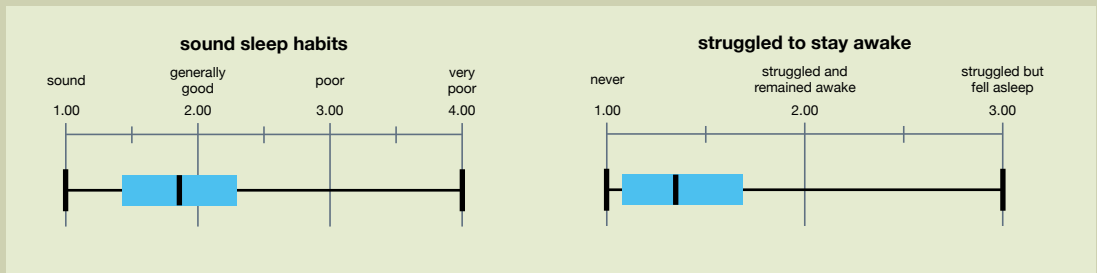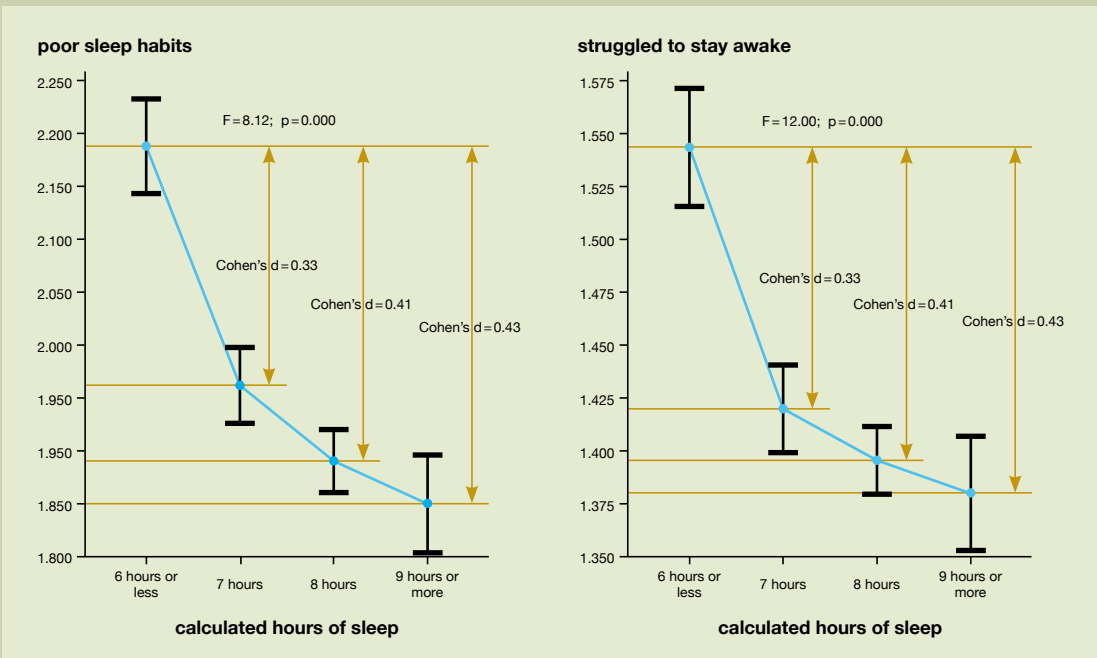

Figure 3: Measures of 'Poor sleep habits' and 'Struggled to stay awake' vs 'Calculated hours of sleep'

Differences associated with the language of the home

Students from homes where the language of communication was not English had slightly higher scores on the two scales, 'Poor Sleep Habits' and 'Struggling to stay awake' than students from homes in which the language of communication was English ($F = 7.27$; $p < 0.01$; $d = 0.25$ and $F = 6.31$; $p < 0.05$; $d = 0.23$ respectively). That is, those from homes in which English was the spoken language had slightly better sleep habits and found it easier to remain alert during the day than did those from homes in which a language other than English was the main means of communication. While the differences were small, they were significant and not chance results.

Differences associated with sleeping arrangements

Figures 4a and 4b present the results of an examination of the effects that respondents' sleeping arrangements had on their sleep habits and on their ability to remain alert during the day. Three groupings of weekly sleeping

Figure 4: Measures of 'Poor sleep habits' against stated religious affiliation
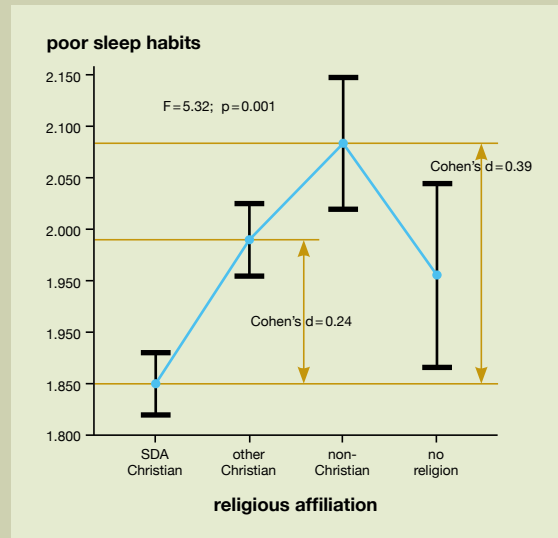
Figure 5: Measures of 'Poor sleep habits' and 'Struggled to stay awake' vs 'Slept in the same bed'

> *Those from homes in which English was the spoken language had slightly better sleep habits and found it easier to remain alert during the day*
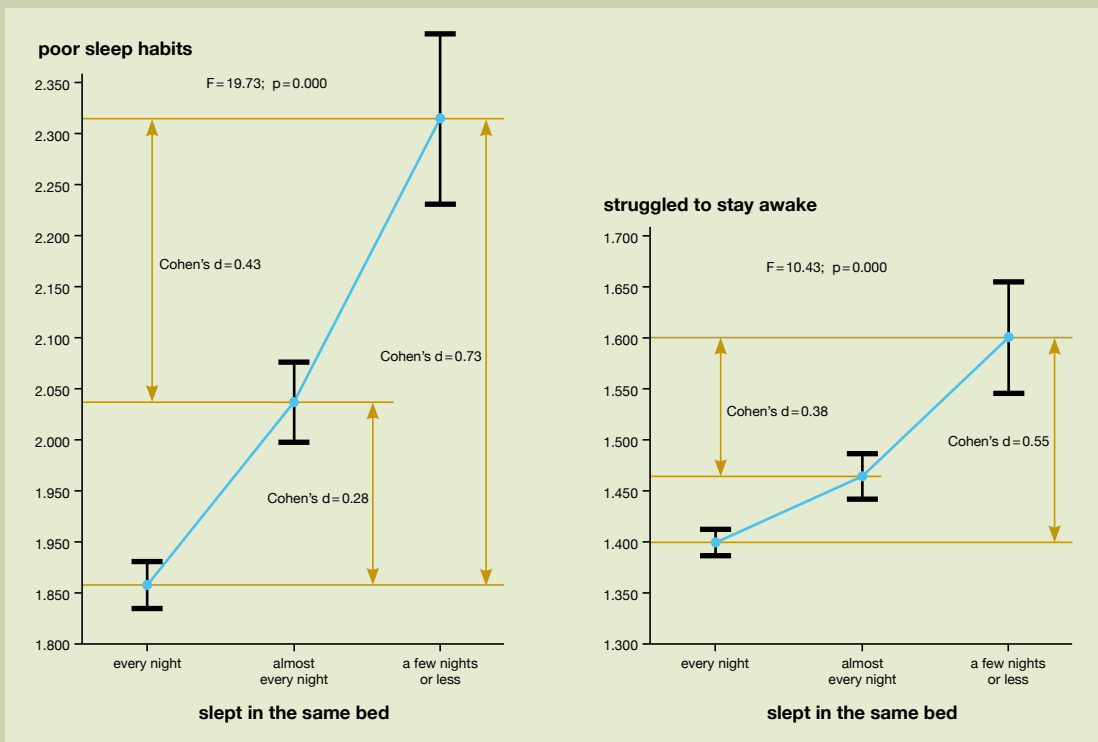
arrangements were employed. The first included those who 'slept in the same bed every night', the second included those who 'slept in the same bed almost every night' and the final group included those who 'slept in the same bed a few nights or less'. These three groups produced distantly separated mean scores on the scale, 'Poor sleep habits' (see Figure 5a). The mean scores on the scale rose in quantum leaps with each movement from 'slept in the same bed every night' through to 'slept in the same bed a few nights or less'. The F ratio of 19.73 and the Cohen's d statistics ranging from 0.28 to 0.73 indicated strong, meaningful and significant separation of the three mean scores. The implication is that having a single, secure and permanent personal space for sleeping contributes strongly to the experience of sound and refreshing sleep habits.

The mean values for the three sleeping arrangements produced a similar pattern of separation of mean scores on the scale 'Struggling to stay awake' (see Figure 5b). Those whose sleeping arrangements were stable exhibited less difficulty in remaining alert while those who slept in the same bed only a few nights or less each week struggled more with remaining awake. Again the F ratio was strong (10.43) and the Cohen's d statistics (0.38 and 0.55) indicated meaningful separation.

Differences associated with personal assessment of class position
The literature review has built the case that sleep both prior to and following a learning experience is related to memory formation. The results of this study indicate a tenuous link with this proposition. Those who placed themselves in the lower academic third of the class indicated the poorest sleeping habits and the greatest problems with daytime sleepiness. Similarly those who placed themselves in the upper third of the class indicated the least problematic sleeping habits and the least problem with daytime sleepiness. The differences between the mean scores in each distribution were robust as indicated by the respective F ratios (F = 25.95; p < 0.001 and F = 18.29; p < 0.001) and by the strong measures of the Cohen's d statistic, which ranged from 0.35 to 0.71 and 0.28 to 0.59 respectively.

Conclusion

These results were not only internally consistent; they were also consistent with the literature that indicates adequate quality sleep is vital to emotional and physical wellbeing and to efficient learning. The literature also indicates that there is a worldwide decline in both the adequacy and quality of sleep enjoyed by adolescents. This decline is reflected in the results of this study.

> *Those whose sleeping arrangements were stable exhibited less difficulty in remaining alert while those who slept in the same bed only a few nights or less each week struggled more with remaining awake*

The results of this study provide a snapshot of the patterns of sleep of the students in Seventh-day Adventist schools (Research Question One). This snapshot suggests that a significant minority of students are not getting sufficient sleep. The literature would suggest that this is likely to have an effect on their health and their learning. The study found that almost one half of the students involved in the study, were getting less than the recommended amount of sleep. Further, that approximately one in five of these students were surviving on six or less hours of sleep per night. Approximately one in four of these students indicated that they rarely or never get enough sleep and approximately one in four regularly sleep in a different bed. In addition, the pattern of sleep on the weekends was found to be significantly different from that of the weekday nights with a larger proportion of students retiring to bed much later on the weekends.

The scales 'Poor sleep habits' and 'Struggling to stay awake' were created to provide measures of the student's perceptions of, respectively, the quality of their own sleep and their daytime somnolence (Research Question Two). These scales were found to be reliable and consistent with the literature. For example, they matched the expected causality in that they exhibited 21% of common variance and further, that students' sleep habits became increasingly poor and students faced greater difficulty in staying awake, as their hours of sleep declined. Measures on these scales suggested that approximately one in four students perceived their sleep habits to be moderately poor and one in four indicated that they suffered from daytime sleepiness.

These scales permitted poor sleep habits and difficulties with daytime sleepiness to be related to a range of other factors (Research Question Three). For example, girls indicated slightly poorer sleep habits and difficulties with daytime sleepiness than did boys. Similar results were found for those from a non-English speaking background over those from an English speaking background. Further, students from Seventh-day Adventist backgrounds indicated fewer problematic sleep habits than those of other religious backgrounds.

One factor did emerge as being interesting and important. Those students who appeared to move between two or more domestic arrangements reported more difficulties with their sleep habits than those who had a single place of abode. These results were robust. The academic performance of students who frequently moved between alternative domestic arrangements suffered as a result.

Finally, academic performance was clearly linked to the quality of sleep and daytime alertness.

These results raise further questions that need to be asked of students in Seventh-day Adventist

schools. For example, what are the causes of the decline in the quality and the length of sleep among students? What are the attitudes of students toward sleep? What do students think could be done to encourage young people to take greater care of their own welfare? Is there, among students, pressure to use substances to combat daytime sleepiness?

Finally, the quality of sleep is related to good health. Therefore adequate sleep becomes a component of personal hygiene. Promoting better sleep habits is as important as any other factor related to the personal development of students. If teachers know that a significant minority of their students are not getting sufficient sleep they can mount a sustained campaign to change that situation.
TEACH

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Adequate sleep becomes a component of personal hygiene. Promoting better sleep habits is as important as any other factor related to the personal development of students

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Anytime email and work-life balance: An exploration into the views of Adventist Schools Australia employees

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Keywords: emails, control, convenience, work-life balance

Abstract
Email has extended its reach beyond the traditional workplace into the non-work hours of employees, disrupting the work-life balance. What was once 'anywhere any time' has become 'everywhere all the time' (Mazmanian, Orlikowski, & Yates, 2013). This study examines the effects of email intrusion on work-life balance from the perspective of a Christian faith-based organisation, which has the additional dimension of espousing a 'healthy' balance between work and life. A survey of 500 employees of such an organisation, attracting 208 respondents, found that nearly all employees owned mobile devices that enable them to access work email outside work time, and that they frequently use these devices when not at work to access work emails. The employees perceived that anytime work emails have provided them with increased flexibility, but at the same time generated greater and frequently unrealistic expectations of them, by parents, students and to a minor degree school administrators. These employees also often felt that these anytime emails led them to working longer hours, generated a sense of being overloaded, contrary to the espoused values of a work and life balance and the importance of family. For these employees the solution to the anytime work email intrusion and resulting stress is not some external control. To most of these employees external control would be much too restrictive and teaching was perceived to be and has always been more than just an 8.30am to 3.30pm responsibility.

Introduction
Whether we are 'digital natives' or 'digital immigrants' (Prensky, 2005) we cannot escape the impact of the digital age, with new technologies seemingly emerging before we have even had opportunity to come to grips with the existing. Just within the confines of communication technologies (PDA, Mobile phones, Blackberry, and Email) there has been considerable research on growth in use and how these devices impact us (see Bittman, Brown, & Wajcman, 2009; Golden & Geisler, 2007; Jeffery, 2012; Middleton, 2008).

There has recently been lively discussion of work-life balance in Australia (Skinner & Chapman, 2013), and while email of itself is simply a communication technology enabling users to transmit written messages, files and other forms of data almost instantly, it has impacted on work-life balance by changing the way we work, including

> *Email ... has impacted on work-life balance by changing the way we work, including developing an expectation of immediacy*

developing an expectation of immediacy in responding to emails (Trinca & Fox, 2004). It is now common place for people to be interacting outside of work hours with email (Pocock & Skinner, 2013), being connected 24/7 (Jeffery, 2012). This relationship between email and work-life balance has generated much research (Barley, Meyerson, & Grodal, 2011; Golden & Geisler, 2007; Jeffery, 2012; Mazmanian, Orlikowski, & Yates, 2013; Pocock & Skinner, 2013), however there is an absence of research considering the effects of such technologies from the perspective of a Christian faith-based organisation, which has the additional dimension of espousing a "healthy" balance between work and life, including a commitment to family values (Grant, 2007).

Literature Review

The concept of work-life balance comes from the boundaries an individual constructs to differentiate the various domains in their lives including work, family, and personal time (Boswell & Olson-Buchanan, 2007). Typically strong boundaries keep the domains separate, whereas weak boundaries see interaction between these domains (Nam, 2013). Increasingly these domains interfere with each other, causing conflict which tends to increase in proportion to the amount of time spent in each of the conflicting domains (Boswell & Olson-Buchanan, 2007; Nam, 2013), and conflict is not just perceived by the individual, but "also those connected to that individual" (Boswell & Olson-Buchanan, 2007, p. 597). Further complicating this relationship is that 'no one size fits all' (Nam, 2013). That is, what one person may be willing to undertake in their personal time may not be suitable for another, however as a generalisation, longer work hours are associated with worse work-life interference (Skinner & Chapman, 2013). The Christian idea of a 'healthy' work-life balance is based on the Biblical principle of periodic and regular disconnection from work (for examples see Table 1), and involves rest (Swindoll, 1990), family time (Julian, 2001) and reflecting on God's plan.

Technologies like email have been accused of blurring the distinction, or even piercing the boundary between work and non-work domains (Fenner & Renn, 2004; Ramarajan & Reid, 2013). This intrusion manifests itself through longer work hours arising from the associated volume of work (Barley et al., 2011) and expectations of faster

Table 1: Examples of biblical principles for a healthy work-life balance

text	action
Genesis 2:3	God completes creation and rests
Exodus 20:8–11	commandment to rest on Sabbath and do no work
Psalms 46:10	being still
Mark 1:35, 3:13, 6:31–32	Jesus seeking a time of solitude
Luke 10:42	Martha being admonished to cease work for a time

response times (Park, Fritz, & Jex, 2011), which decreases the downtime available to employees (Mazmanian et al., 2013). It also intrudes through employees feeling perpetually connected to the workplace (Wright et al., 2014) which has the potential to interrupt an individual at any time and any place (Boswell & Olson-Buchanan, 2007). The concept of 'anywhere, anytime' has instead become 'everywhere, all the time' (Mazmanian et al., 2013). With this has come a sense of stress and overload (Barley et al., 2011; Mazmanian et al., 2013), and yet a number of researchers also reported that informants felt a strong sense of control in being able to cope with the volume of email by extending their working day (Barley et al., 2011; Cavazotte, Lemos, & Villadsen, 2014; Mazmanian et al., 2013).

Such a contradiction exists in the perception of this intrusion. The positives of flexibility and autonomy provided by mobile technology to an individual, specifically to respond at a time of their own choosing, can create a negative through a sense of overload and interference with free time (Mace, 2013; Mazmanian et al., 2013; Pocock & Skinner, 2013; Skinner & Chapman, 2013; Wright et al., 2014). It is common for employees to "oscillate between expressions of control and powerlessness" (Cavazotte et al., 2014, p. 85). Wright and associates (Wright et al., 2014) note that the perception of the intrusion also depends on the individuals concept of their work-life boundaries – those with more permeable boundaries would perceive the intrusion of such communications more favourably than those with a very rigid separation between the work and life domains. For many employees, to have 'personal choice' or 'free choice' is important (Cavazotte et al., 2014), and where some workers are happy with flexibility, others see conflict (Ramarajan & Reid, 2013). Boundaries are usually potentially permeable (Golden & Geisler, 2007); therefore employees need to set their own boundaries (Golden & Geisler, 2007; Mace, 2013). It is asserted that "workers who

> " *For many employees, to have 'personal choice' or 'free choice' is important and where some workers are happy with flexibility, others see conflict* "

schedule and exploit their time wisely, and who set reasonably separate boundaries between work and family are less likely to experience conflict" (Fenner & Renn, 2004, p. 196). A significant consequence of dealing with emails outside of working hours however, has been to 'shift the norm' by raising others' expectations of accessibility through the constant connectedness to the office (Mazmanian et al., 2013).

Aim

This study aims to examine the effects of email intrusion on work-life balance from the perspective of a Christian faith-based organisation, which has the additional dimension of espousing a 'healthy' balance between work and life.

Method

Participants and procedure

Data for this study were collected by means of an anonymous online survey to access the views of employees working in the private education sector. Emails were sent to 500 employees located in seven of the nine operational regions within Australia overseen by Adventist Schools Australia (ASA), inviting them to participate in the attached online survey relating to the impact of emails on life at their workplace and beyond. Of those that were sent emails, 208 completed the survey; a 40.16% return rate (68 males, 128 females and 12 not specifiying their gender). This sample consisted of 21.2% within the 20-29 age category, 23.1% within the 30-39 age category, 23.1% within the 40-49 category, 20.7% within the 50-59 category and 6.7% aged 65+ years and 11 omitting their age. In terms of roles in their respective schools 67.6% were teachers, 20.1% were administrators (head of department, assistant principal or principal) and 12.3% were support staff.

Survey Instrument

The instrument consisted of 20 questions divided into four sections. The first section consisted of six demographic questions. The second section consisted of 6 questions adapted from the Pocock & Skinner (2013) email intrusion survey relating to the participants access to emails. In particular, when and why the participants accessed these emails, the impact of these emails on their life now and how this compared with their past experience. Two open-ended questions made up the third section. These questions provided an opportunity for the participants to express their feelings related to any substantial increase in work-related emails and debate the issue of whether employers should restrict access to work-related emails outside work hours. The final section consisted of five questions from which a work-life index was calculated. This scale is a measure of the degree to which work is perceived to interfere with non-work activities, where a score of 0 indicates the lowest work-life interference and a score of 100 the highest work-life interference (Skinner, Hutchinson & Pocock, 2012).

Data Analysis

The numeric data from the survey responses were entered into the statistical software package IBM SPSS Statistics 21.0 (2012). Descriptive statistics for the respective section two questions and the Work-life Index scale were calculated. Independent groups t-test and one-way between groups ANOVA with post-hoc comparisons were performed to locate areas of significant difference in the data. Reliability for the work-life scale was determined using Cronbach's Alpha. The open-ended questions were explored following the general principles of thematic analysis. In this inductive process the textual data

> *This study aims to examine the effects of email intrusion on work-life balance from the perspective of a Christian faith-based organisation*

Table 2: Frequency of checking work emails when not at work

| | percentage of participants | | | | | | |
frequency	male (%)	female (%)	20–39 years (%)	40+ years (%)	teacher (%)	administrator (%)	support staff (%)
never	8.3	5.2	7.0	6.0	5.0	8.1	9.5
occasionally	11.7	16.4	20.9	12.7	17.5	0	28.5
every few days	1.7	8.6	2.3	7.5	9.2	0	0
once a day	13.3	16.4	7.0	17.9	15.0	18.9	9.5
a few times a day	40.0	46.6	48.8	42.5	41.7	54.1	33.3
every hour or so	25.0	6.9	14.0	13.4	11.7	18.9	19.0

is first coded and then these codes are refined into a smaller number of categories and finally nested categories are mapped into substantive themes.

Results
Email Access
Potential, frequency and times

The overwhelming majority of the participants had a mobile device (e.g. Smart phone, tablet) that lets them check their work email at any time. There was no significant difference in terms of possession of a mobile device between males and females (males – 88.2%, females – 91.3%), the different age categories of the participants (20-39 years – 89.5%, 40+ years – 90.5%), or participants with different roles (teachers – 91.2%, administrators – 90.2%, Support staff – 87.5%). The frequency of checking work emails when not at work for the various subgroups is shown in Table 2. A staggering 90+% of the participants indicated that they check work emails when not at work, the greatest number checking emails a few times a day. Even though there was no significant difference in frequency of email checking between males and females, or age categories, there was a notable difference across the different participants' roles, with the support staff checking less frequently than the others.

In terms of when the participants access their emails there is no significant difference across gender, age groups or the broad work role categories. With 21.2% accessing emails before breakfast, 42.3% accessing emails in the evening, 56.3% accessing emails at various times during the day and 30.8% when they are on holiday. If the data is analysed across the five different work roles however, a number of patterns can be identified (Table 3). It is important to note that numbers

within each sub-role are small and the data should be interpreted with caution. It is the assistant principal that checks work emails most often before breakfast, during the day and during the holidays. On the other hand it is the principal that most often checks work emails in the evenings and unexpectedly a large percentage (64%) of support staff check their work emails via mobile devices during the day.
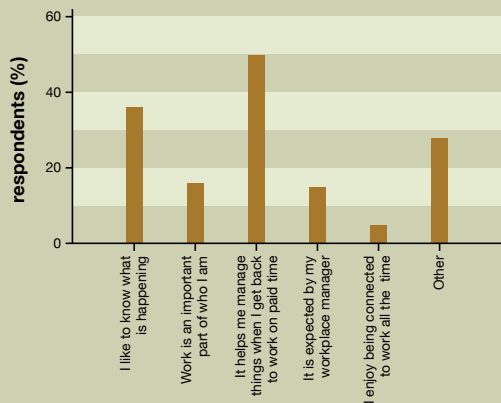
Motivation and Impact

A question was asked to explore why the participants check their emails when not at work (Figure 1). The responses suggest the majority of the participants are motivated to access work emails outside of work because they see that this will enhance their ability to keep on top of work responsibilities when they get back to the workplace. Further, for most, their workplace managers did not expect this checking, which was contrary to the researchers' initial expectations. Another question was asked to explore the impact of having work email available at any time, on their lives in general (Figure 2.). The most common response was that it was helpful and made processing information more efficient. This question however, allowed multiple responses. For the analysis of the nature of the participants multiple responses, the responses were first categorized as either positive responses (helpful & efficient) or negative (an intrusion, tiring & a distraction). Of those who gave multiple responses 30% selected only the positive responses, 15% selected only negative responses and the majority (55%) selected both positive and negative responses. It seems that to many of the participants the impact of anytime work email availability is perceived as both a help and interference in their life.

> "It seems that to many of the participants the impact of anytime work email availability is perceived as both a help and interference in their life"

Table 3: A comparison of when participants access work emails across the respective participants' work roles

percentage of participants					
checking frequency	teacher (%)	head of department (%)	assistant principal (%)	principal (%)	support staff (%)
before breakfast	17.4	18.8	46.2	41.7	24.0
in the evening	41.3	31.3	53.8	83.3	32.0
at various times during the day	52.2	56.3	84.6	66.7	64.0
when you are on holidays	25.4	31.3	76.9	41.7	32.0

Figure 1: Why participants check work emails when not at work

Figure 2: The impact of email checking at work

> *It feels like you can never stop checking and simply have a break, otherwise it gets on top of you and you are unable to keep up with the demand*

increase. Also as I have progressed . . . email communication has been more frequently used." (Respondent 1).

A number of respondents had neutral feelings about the increase in work-related emails that they had experienced over their time in the workplace. As one teacher put it, *"It is just something I have to deal with, I don't really have any feelings about it"* (Respondent 9). Other participants suggested it was to be expected in order to remain current, *"It has to happen to move with the times"* (Respondent 17), *"It matches the changes in living and the work environment"* (Respondent 45), *"It is a sign of the changing world"* (Respondent 83), *"It is not a concern, it is just how it is today"* (Respondent 84), *"It's just the way things are done now. It's part of technology advancement"* (Respondent 85).

Negative aspects

A recurring theme of informants' responses addressed the expectations that surround the increasing expectation to respond quickly to emails received. Most respondents viewed this negatively. A head of department described this as finding emails *"demanding as people now expect immediate responses"* (Respondent 124). Teacher comments included *"it can also feel quite intrusive when unreasonable out of hours requests are made by students e.g. wanting you to email them another copy of a task sheet asap as they have lost theirs"*, (Respondent 86) and *"…much higher expectations of constant communication with students and parents"* (Respondent 76). One principal stated they felt *"Bound by expectations to deal with [work-related emails]. It's all just another stressor that you wish could be sent somewhere else"* (Respondent 23).

A consistent view, taken with regard to the increase in work-related email participants had experienced, linked to feelings of being overloaded
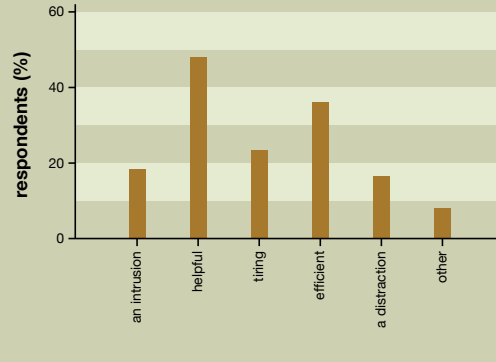
Attitudes to the email flood

When reflecting on their time in the work force, over 80% of the participants indicated that there had been a notable increase in work related emails. A t-test was used to compare the means of the 20-39 years age group with the 40+ year group, and it is noted the mean representing the perceived increase for the older age group was statistically greater [t(171) = 2.009, p < 0.05, M20-39 = 3.1, M40+ = 3.6] as expected. Even though the 20-39 years age group were less likely to indicate there had been an increase in work emails over their work life, still 76.2% of them indicated that there was a notable increase. There was no statistically significant difference in the perceived increase in work emails between the male and female participants. In summary, the vast majority of the participants independent of age and gender feel that the number of work emails they encounter has been increasing over the years.

In the first of the open-ended questions, respondents were asked to describe how they feel about the increase in work-related emails they have experienced in their time in the workforce. A number of informants indicated that the increase in work-related email that they experience has come about due to increases in technological advancement and availability. These responses were couched within a view that email has improved communication, or is seen as a better method of communicating than historical alternatives. *"When I first started teaching, we didn't have emails. So there is a significant increase. It doesn't worry me. Better that than paper messages" (Respondent 47).* Additionally, *"I have been teaching for over 20 years and in the early years, email did not exist, hence the substantial*

by the extra work they perceived resulted from this increase. As one assistant principal stated *"It feels like you can never stop checking and simply have a break, otherwise it gets on top of you and you are unable to keep up with the demand"* (Respondent 109). This demand was indicative of the greater expectations respondents alluded to with regards to the educational setting in which they worked. A number of educators indicated increasing expectations from parents and students for timely responses, suggesting an increased demand on the teachers' time outside of work hours. The following responses were indicative of the views expressed: *"Mixed feelings [about work-related email] - it is convenient and makes communication instant and easy, but it has increased demand on the time of teachers - especially in relation to communicating with parents and students"* (Respondent 118). *"[E-mail] takes up a lot of time which means I spend more time working to stay on top of everything. Also much higher expectations of constant communication with students and parents"* (Respondent 76).

Numerous participants indicated the impact work-related emails have on their home lives. A constant theme of this was the ongoing nature of work e-mail and the intrusion this is seen to have on family life. One educator stated *"It's something that I'm in constant conflict over - as in it's hard to stop thinking about work, but it can also cause occasional conflict in my personal relationships"* (Respondent 106). Other comments included *"Unfortunately, it takes up a majority of family time to clear as there is limited time during the day..."* (Respondent 25), *"It does sometimes become intrusive of my home life"* (Respondent 54), *"Has serious impacts on family time and work-life balance"* (Respondent 75), *"Find it difficult to switch off…"* (Respondent 91). One Head of Department indicated a manageable current level of work-related email use, but noted that *"In a previous position it was all-consuming and intruded considerably on my family time"* (Respondent 100). Another Head of Department stated that the perceived increase of work-related email *"Only adds to one's workload. Destroys family life!"* (Respondent 121).

Informants also indicated that work-related email led them to work longer hours. One teacher commented that work-related email *"Takes up a lot of time which means I spend more time working to stay on top of everything"* (Respondent 76). An assistant-principal commented that *"It makes communication easier; though it keeps me tied to a desk for far longer as emails need replies..."* (Respondent 119). One respondent surmised *"I feel like time off is no more"* (Respondent 82).

> *"An increase in work related emails is a good thing. Emails are generally a quicker and more succinct way of communicating morning announcements or information that can be given in this manner rather than in another staff meeting"*

A number of educators espoused the view that work-related email is often used in irrelevant ways, evidenced by comments such as *"It can be frustrating, as many of the emails I receive are redundant"* (Respondent 94). Additional comments such as *"The email system seems to be considered a bit of a social platform at times so a lot of the emails are really pointless, which is annoying"* (Respondent 67) and *"Too much irrelevant mail to look through. For example someone finds an article they've googled interesting and so they send it to everyone"* (Respondent 44) support this notion. Respondents also indicated concern that with the heavy increase of work-related emails, they had concerns that not being 'up to date' or being caught 'unprepared' were significant reasons for their use of work-related emails outside of work time. Comments that reflect this included *"Most of it could wait, but we are expected to read it and respond. If we do not regularly check our emails and wait, say until Monday morning, we can often be caught unprepared for something"* (Respondent 69) and *"It feels like you can never stop checking and simply have a break, otherwise it gets on top of you and you are unable to keep up with the demand"* (Respondent 109). One Head of Department explained that *"It is very time consuming to keep up to date and stay professional with timely responses when most people expect a reply within 12-24 hours"* (Respondent 92).

Positive aspects

Respondents indicated that the increased use of work-related email had significant benefits for communication in educational settings. *"It's the most efficient way for a larger school … to communicate and with the rapid growth of our school more emails are to be expected"* (Respondent 27). This sentiment was echoed by other comments such as *"An increase in work related emails is a good thing. Emails are generally a quicker and more succinct way of communicating morning announcements or information that can be given in this manner rather than in another staff meeting"* (Respondent 43). One teacher summed this view up by stating that *"Communication is an intrinsic and important part of effective team work"* (Respondent 87).

In sum, many participants lamented the increased use of work-related email and used terms such as 'pressured', 'overwhelmed', 'increased expectations', 'demands', 'stress', 'overloaded', and 'constant barrage' to encapsulate how they felt about this. However, many and not infrequently the same respondents, felt positive about the opportunities email presents for increased communication, citing terms such as 'efficient', 'convenient', 'effective',

'helpful' and 'easy' to describe this.

The second open-ended question asked survey participants whether they would be supportive of employers introducing measures to restrict access to work related emails outside of work hours. Over 67% of respondents indicated they would not be supportive of such measures and the remaining 33% indicated they would.

The case against external control

The most predominant reason for why education employees indicated they would not be supportive of restricting access to work-related email was their view that this access assisted their work efforts. As one respondent put it, *"It helps me keep up"* (Respondent 42). Other teacher comments suggested a need for email access in order to manage overall workload, with responses such as *"I need access to manage my workload at home. If I did not do the work outside of hours I would feel even more behind"* (Respondent 159). One principal was of the view that they *"wouldn't be able to do the job"* (Respondent 122), a view supported by a teacher who believed *"[Restricted access] would limit my ability to do my job"* (Respondent 115). Other educators felt they *"would have to be at work for longer periods rather than working from home during the evening"* (Respondent 142). Other views associated with this related to the time needed to respond to work emails, with comments such as *"If I had only during work hours to do emails, I would never get any real work done at work"* (Respondent 147) and *"I need access [to work-related email] to manage my workload at work. If I did not do the work outside of hours I would feel even more behind"* (Respondent 159).

Another theme that emerged from the survey results was related to employee ability to make the decision to access or not access work-related email for themselves. Respondents felt very strongly that this decision should rest with them, with comments such as *"If I want to do work, I would like to be able to choose when!"* (Respondent 62), *"I can choose when I look at my emails"* (Respondent 82), and *"Freedom to check emails at any time should be a right of the employee"* (Respondent 109). Specific reference was made to the fact that employees saw these hours as their own, stating *"I think if you want to stay connected outside of work hours that is your own personal choice"* (Respondent 103) and *"It should be up to individuals to regulate usage out of work hours"* (Respondent 107). A number of educationalists appeared to feel strongly against such regulation, declaring *"outside of work hours is my business, not theirs"* (Respondent 121) and *"I am an adult and capable enough of making that decision*

myself" (Respondent 131).

Respondents also identified that teaching is not strictly defined in its work hours, and as such, some after hours work is not only expected, but necessary. As one teacher commented, *"Teaching NEEDS to include planning and marking time outside of work hours. It is a necessity to be efficient in my job"* (Respondent 145). Convenience was identified also as a reason for not restricting work-related emails as *"Sometimes if you forget something its helpful to be able to email someone so they can check it the next day"* (Respondent 84).

Teachers have a particular need for planning in order to be prepared on a daily basis, and the survey responses provided strong evidence of this. Comments such as *"Some of the emails we receive on the weekend from HOD have important information which is critical to include in our planning for the week ahead"* (Respondent 120), and *"I need to know what lies ahead, so I can plan and execute accordingly"* (Respondent 52) shed light as to the rationale for not restricting access to email. One principal stated *"I should be doing much less from home than what I am currently doing, but would like the option to be able to work some evenings if it helps to make the next day better organized"* (Respondent 117).

Others cited the flexibility provided by the access to work email at any time as a significant factor in having no restrictions placed on their email access by employers. Teachers commented *"I'd like the flexibility to access them whenever I'm able"* (Respondent 54), *"I need to have access to work emails when I am ready to look at them"* (Respondent 59) and *"It means I can attend to work at a time that it suits me"* (Respondent 149). Other responses hinted at the angst that not having access would lead to, as *"Being able to check my emails means that I can manage my own time. If this was restricted it would be an absolute frustration"* (Respondent 151).

Responses also suggested that restricted access to work-related emails after hours would place more pressure on teachers during work time. A teacher commented that *"I feel that [restricted access after hours] would put more pressure on the time I was at work"* (Respondent 30). This tied to the belief that there was not enough time in the day to check and respond to work emails, with a number of teachers commenting that *"…teaching time takes up a large portion of the working day, so often emails need to be checked after hours"* (Respondent 43). It was suggested primary teachers particularly may find it difficult to access email as *"…on days where there are staff meetings till 5pm, you would not have a chance to check email from 8:15 (worship) to 5pm*

> *Being able to check my emails means that I can manage my own time. If this was restricted it would be an absolute frustration*

unless you are lucky enough not to have a duty during recess or lunch break and don't want to use the bathroom or eat!" (Respondent 116). This view was affirmed by one teacher stating, *"Often once the work day begins there is little time to do emails"* (Respondent 126).

Overall, teachers appeared strongly of the view that restricting access to and use of email outside work hours was not something they believed the employer could do, with one teacher responding *"Our employers cannot regulate that. Besides, it's up to the employee to decide how often he or she will check emails. It shouldn't be the employer's job to introduce new laws that should be regulated by the employees"* (Respondent 134).

The case for external control

A clear theme emerged from the respondents who indicated they would be supportive of their employers taking measures to restrict access to work-related emails outside of work hours. The vast majority of comments related to the expected improvement such measures would have on work-life balance. There was a view that *"[Teachers] should have a balanced work and home life"* (Respondent 124). On the same theme, another respondent put the view that the restriction of work-related emails outside work hours may contribute to more productivity, suggesting *"There needs to be a balance between work and time out of work for more productive employees"* (Respondent 105). One head of department believed restricting access would *"Help to have work life balance and not to feel stressed about work, so when I am actually at work I would feel more able to deal with issues and pressures"* (Respondent 113).

Other views such as *"Give me back my life!"* (Respondent 96) and *"Take a look at the breakdown

> This difference in the mean work-life Index between the support staff and the other two work role categories was significant

of the family.... come on people... prioritize!!"* (Respondent 111) offered insight as to the rationale for restricting access. However, an overwhelming number of responses suggested that teachers felt strongly about being able to make use of work-related email outside of the time that would normally be spent on the campus of schools. The dominant view was that to have access limited would be *"too restricting"* (Respondent 125).

Work-life balance

The Work-life Index, where 0 indicates the lowest and 100 highest level of work-life interference was calculated for each participant. The Work-life Index registered an acceptable reliability coefficient (Cronbach's alpha) of 0.88. The distribution of the Work-life Index amongst the participants' different work place roles is displayed in Figure 3. This difference in the mean Work-life Index between the support staff (M_{ss} = 42.29) and the other two work role categories (M_t = 58.56 and M_{admin} = 65.25) was significant [$F(2,193)$ = 10.402, $p < 0.001$]. There was no significant difference between the mean work-life Index when comparing teachers and administrators, males and females or the respective age groups.

What is interesting, however, is the magnitude of the Index for each work role category. The Australian Work and Life Index (AWALI) survey found that the average score for working Australians was 42.8 and that managers and professionals had the highest scores, in the 47-51 range (Skinner, Hutchinson & Pocock, 2012). So even though the work-life interference for the school support staff is comparable with the AWALI data, the work-life interference for the teacher and administrator participants was higher than any group in the AWALI survey.

Figure 3: Distribution of the work-life index across work role categories
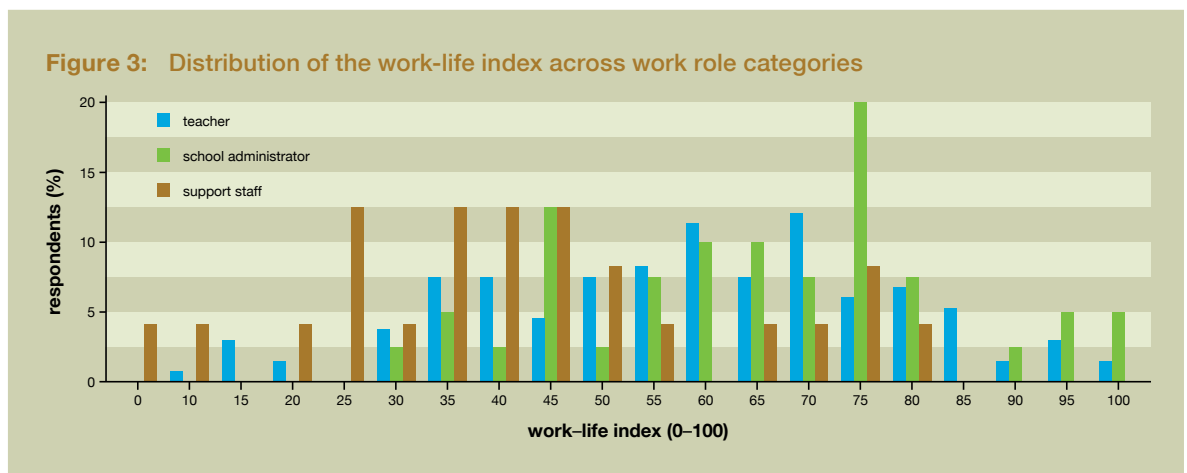
Discussion

This study indicates that nearly all ASA employees own mobile devices that enable them to access work email outside work time, and that they frequently use these devices when not at work to access work emails. Other research suggests that this has become common place in many workplaces and professions (Pocock & Skinner, 2012; Jeffery, 2012). Interestingly there is no significant difference in the frequency of accessing work emails outside of work time between the males and females, and the 20-29 years age group and the 40+ years age group. There is a difference between the respective work roles in out of work time work email access frequency with the support staff not accessing as frequently (but not by much) as the teachers and school administrators. The data would suggest that principals during the evenings and assistant principals in the holidays are letting anytime work emails consume time needed to keep a work-life balance.

The ASA employees perceived that anytime work emails have provided them with increased flexibility but at the same time generated greater expectations of them, many times unrealistic, by parents, students and to a minor degree school administrators; a situation noted by other researchers (Mazmanian et al., 2013; Park et al., 2011; Cavazotte et al., 2014). This simultaneous praise for and condemnation of the anytime work email was a theme that was constantly encountered throughout this study. These employees also often felt that these anytime emails led them to working longer hours, generated a sense of being overloaded and as one employee put it, "[dealing with anytime work emails] does have a serious impact on family life"; with many of the employees expressing considerable stress from these consequences. For an organisation that espouses a work and life balance and the importance of family, this situation may need to be explored further. For these employees, however, the solution to the anytime work email intrusion and resulting stress is not some external control. To most of these employees external control would be much too restrictive and teaching was perceived to be and has always been more than just an 8.30am to 3.30pm responsibility.

The work-life Index values calculated for teachers and administrators are extremely high indicating significant work life interference. This should be of concern for the administrators of employees of ASA, particularly as they support a holistic view of living including promoting periods of rest and disconnection from the work place. Finally further study is needed to determine the degree to which this anytime work email situation is contributing to work-life interference and resulting stress, for as Barley et al. (2011) suggest the anytime email may be a source of stress but it may also be a symbol of stress masking an appreciation for other factors that may be significant contributors. TEACH

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> *The work-life interference for the teacher and administrator participants was higher than any group in the AWALI survey*

Acceptability of a school-based incentivised physical activity intervention: The B-Active program

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Abstract

The purpose of this study was to examine the acceptability to students, parents and teachers of a school-based intervention that incentivised students using prizes to be more physically active (the B-Active program). Three hundred and eighty-five children (54% boys, 46% girls) in Years 3 – 6 from five schools participated in the study. Six parents and three teachers were also interviewed about their perception of the B-Active program. Overall, the students enjoyed the B-Active program but the level of acceptability was lower for the parents and teachers. This study indicates that to increase acceptability, parents need to be well informed and engaged and teachers need to be well supported so as to not add to their administrative responsibilities.

> *The majority of Australian children ages 5 – 17 years are not meeting the Australian Physical Activity Guidelines*

Introduction

Physical activity (PA) is of paramount importance to the health of children (Active Healthy Kids Australia, 2014). Lack of PA in childhood is associated with increased overweight and obesity, type II diabetes and risk factors for cardiovascular disease, as well as sub-optimal skeletal growth and poor psychosocial measures (Biddle & Asare, 2011; Must & Tybor, 2005; Motl, Birnbaum, Kubik et al., 2004; Pontiroli, 2004; Slemenda, Miller, Hui et al., 1991).

Clearly it is imperative that children meet recommended PA guidelines to avoid the ill-effects of physical inactivity. Disturbingly, the 2014 Australian Report Card on PA for children and young people awarded a "D-grade" based on the evidence that the majority of Australian children ages 5 – 17 years are not meeting the Australian Physical Activity Guidelines (Active Healthy Kids Australia, 2014). Initiatives to increase PA in children are desperately needed.

As the largest portion of a typical child's weekday is spent at school and the school environment offers an accessible infrastructure through which students may be informed and monitored, school-based programs to promote PA are desirable (Powers, Conway, McKenzie, et al., 2002; Lubans, Morgan, Weaver et al., 2012). School-based programs have been shown to increase children's' PA (Naylor et al 2010, Mâsse et al 2012); however, for long-term sustainability such programs need to be acceptable to the children and administering stakeholders, including teachers and parents.

This study examined the acceptability of a school-based PA program (the B-Active Program) to Year 3-6 students, their parents and teachers. The B-Active program encouraged students to participate in organised and unorganised PA both inside and outside the school environment through a reward-based, prize incentive scheme. PA-promoting programs involving rewards have been shown to increase children's PA (Cohen, Morgan, Plontnikoff et al., 2014; Epstein, Saelens, & O'Brien, 1995; Lubans, Morgan, Weaver et al.,

2012; Hardman, Horn, Fergus et al., 2011); however, the acceptability of these programs has not been determined.

Method
Participants
All students (N ≈ 750) in Years 3 – 6 (aged 7-13 years) from five primary schools located in outer-city suburbs of Sydney and Melbourne were invited to participate in the B-Active program and take part in the study. Of these students, 385 children (54% boys, 46% girls) returned parental consent forms and hence constituted the study sample. Additionally, six parents and three teachers were randomly selected to be interviewed about their perception of the B-Active program. Approval for the study was gained from the Avondale College of Higher Education Ethics Committee.

Study design
A mixed methods approach (Creswell & Clark, 2011) was used involving a student questionnaire and parent and teacher interviews.

The B-Active program and Implementation
The B-Active program aimed to incentivise the PA of children by utilising a web-based interface through which students could log their participation in both organised and unorganised PA to earn points that could be redeemed for prizes.

Students were introduced to the B-Active program through their school. Printed material about the B-Active program was sent home with the students to share with their parent(s). Parents were encouraged to play an enabling role in supporting their child to participate in both organised and unorganised PA by "signing off" on the PA that their child undertook. Members of the research team visited the schools and instructed the students about the B-Active program and the process of earning and redeeming prizes. The students were guided and trained in how to record their PA and how to enter it into the B-Active website, which involved creating a unique B-Active profile. The web-interface was user-friendly and once their profile had been created the students could easily log their PA participation by indicating the duration (in minutes) and type of activity (using drop-down menus). The web-interface automatically calculated and awarded points to the student's profile, with higher intensity activities earning more points.

The B-Active program commenced in Term 1 and ended in Term 4 (a total of 34 weeks). During this time the students were encouraged to record their PA. The students were able to redeem their accrued points for prizes at any time throughout the program, or they could accumulate their points so as to earn a more valuable prize. Prizes consisted of sports-related equipment and there were four tiers of prizes, each requiring a different minimum number of points

The B-Active program aimed to incentivise the PA of children by utilising a web-based interface through which students could log their participation

Table 1: Student attitudes to the B-Active Program

	Statement	True for me	Sort of true for me	Sort of not true for me	Not true for me
1.	I enjoy being involved in the B-Active program.	29%	37%	17%	17%
2.	The B-Active program made me do more physical activity.	23%	32%	21%	24%
3.	My parent encouraged me to do physical activity so as to earn points for the B-Active program.	18%	27%	22%	33%
4.	My parent took me to my sporting club or game so that I could do physical activity and earn points for the B-Active program.	20%	21%	24%	36%
5.	My parent watched me do the sports that I was participating in so as to earn points for the B-Active program.	21%	27%	20%	32%
6.	My parent signed my PA timecard for me so that I could earn points for the B-Active program.	25%	21%	23%	31%
7.	I like the different sports and physical activities they had on the list to earn points for the B-Active program.	31%	27%	22%	20%
8.	It is easy for me to get my PA timecard signed off by an adult.	30%	23%	23%	24%
9.	My teacher encouraged me to be active and earn points for the B-Active program.	25%	27%	25%	23%
10.	I got a prize with the points I earned in the B-Active program.	27%	25%	16%	33%
11.	The list of prizes I could choose from was good.	31%	30%	18%	21%
12.	I had no problem earning prizes.	26%	27%	20%	27%
13.	If there were no prizes, I would still do the B-Active program and keep track of my minutes of physical activity.	27%	24%	25%	24%
14.	I regularly checked how many points I had.	18%	21%	22%	39%
15.	I have no problem entering in my PA timecard on the computer.	25%	24%	22%	29%
16.	I would rather be involved in unorganised sport and physical activity (such as walking, biking) than organised sport (such as soccer training, dance lessons).	24%	25%	20%	31%
17.	The B-Active program takes up too much of my time and keeps me from doing other important things.	19%	25%	23%	33%
18.	I would like to continue being a part of the B-Active program.	33%	27%	17%	23%
19.	Overall, the B-Active program is fun and worthwhile.	70%	11%	8%	11%

"The students could order the prizes through the website and these were delivered to the school for presentation"

with the more expensive items requiring more points. The students could order the prizes through the website and these were delivered to the school for presentation. Funding for the prizes was supplied by the BUPA Health Foundation.

Classroom teachers were involved in the program by monitoring and supporting their students throughout the program and also "signing off' on their students' PA participation during school time.

Data collection and presentation
The students completed a questionnaire at the end of the B-Active program that comprised 19 attitudinal questions relating to the program. All questions used a 4 point Likert scale with the options ranging from *true for me, sort of true for me, sort of not true for me*

to not true for me (see Table 1). The data from the student questionnaire are presented as descriptive statistics (Table 1). The qualitative data was gathered through parent and teacher interviews which were recorded through hand written notes. These were subsequently coded into themes through an analysed process of constant comparison.

Results
Students' attitudes toward the B-Active Program
The responses of the 385 students to the questionnaire administered at the end of the B-Active Program are shown in Table 1.

As seen in Table 1, the majority of the students enjoyed being involved in the B-Active program (Q1) and would have liked to continue in the

program (Q18). A little over half of the students that participated in the B-Active program felt that they did more PA because of the program (Q2). Approximately half of the students indicated they had no difficulty earning and claiming a prize, however, the other half indicated they did encounter difficulties (Q12). Most students seemed to be happy with the selection of prizes they could choose from (Q11). The students didn't feel the B-Active program took up too much of their time (Q17) and the majority of students felt that the B-Active program was fun and worthwhile (Q 19). Close to half of the students indicated that they felt their parents were not engaged in supporting them in the B-Active program (Q3 to 6).

Parent attitudes toward the B-Active Program

Six parents (all female) whose children were enrolled in the B-Active program agreed to be interviewed about the program. Several themes were captured from the parents' responses to questions relating to the B-Active program.

The majority of the parents felt that the B-Active Program was worthwhile, as evidenced by the following quotes:

Parent 1. Because of the B-Active program, my child wants to be more active and she is now quite confident.

Parent 2. As a parent, the program made me aware that we aren't doing as much as we should in helping our children increase their physical activity. It prompted us in that way.

Parent 3. The value in the program is that the kids enjoy it!

However, one parent stated:

Parent 4. The B-Active program didn't make any difference with my child because they are already active all the time.

The parents also indicated that they found the B-Active program a little confusing or difficult to engage with. While they felt that the B-Active program was a good concept they also felt that it did not sufficiently engaged their child/children. The parents indicated that the B-Active program could be improved by being better administered, having greater PA options to select from in the drop-down menu items in the web-interface, and better prizes at the highest point-redeeming level.

Teacher attitudes toward the B-Active program

Three teachers (two males and one female) whose class had participated in the B-Active program were randomly selected to participate in a post-program interview to assess their attitudes toward the B-Active program.

Overall these teachers thought the B-Active program was a novel idea and supported the notion of increasing PA in children. However, the teachers reported little engagement with the B-Active program themselves, as they were too busy with other school related work. They felt the administration of the program in their schools was inadequate.

" As a parent, the program made me aware that we aren't doing as much as we should in helping our children increase their physical activity "

Teacher 1. The B-Active program needs a teacher or coordinator at the school to drive it.

The teachers also deemed the prizes on offer did not provide enough incentive to motivate the children to be more active.

Teacher 2. The prizes were a good enough incentive to get the students to document the physical activity they were already doing but not good enough to motivate the students to actually do more exercise.

Discussion

The results of this study indicate that the B-Active program was acceptable to the majority of students, but less so to the parents and teachers. Several lessons from the study emerge relating to increasing the acceptability of the B-Active program, as well as other programs that aim to increase PA through prize-incentivisation.

The B-Active program rewarded both organised and unorganised PA, which appeared to increase acceptability of the program. In addition to increasing acceptability, encouraging unorganised PA is important from a public health perspective. For example, while approximately three quarters of Australian children participate in organised sport (Australian Bureau of Statistics, 2012), only 19% meet the National PA recommendations (Active Healthy Kids Australia Report, 2014). This disparity is attributed to the high level of sedentary activities children participate in when they are not engaged in organised sporting activities. There is a growing recognition that organised PA, such as involvement in sporting teams, is often not enough to activate children and that more active play is necessary and needs to be encouraged (Active Healthy Kids Australia, 2014). Acknowledging and rewarding

> *There is… recognition that organised PA, such as … in sporting teams, is often not enough … and that more active play is necessary*

unorganised PA in prize-incentivising programs like the B-Active program is therefore important.

Being a prize-incentivised program, the quality of the prizes was clearly an integral part of the B-Active program that greatly influenced its acceptability to the participating students, and as discussed below, its potential effectiveness for motivating increased levels of PA. The findings of this study suggested that the students valued the prizes enough to document the activity they were already doing, but possibly not enough to motivate increased PA participation. Clearly, prizes that are highly valued by the students are ideal for programs like B-Active, however, there are two considerations that arise from this imperative. Firstly, prizes more highly valued by the students typically incur a higher cost. In this study, the prizes were donated by the BUPA Health Foundation but a funding source might often not be available to schools in which case the program would not be viable or sustainable. Hence, programs like B-Active might not be applicable in all contexts and communities. Secondly, it is important that the prizes are consistent with the ethos of the program that aims to encourage healthy living practices. In the B-Active program the prizes centred around sporting equipment such as Frisbees and various styles of balls. However, these prizes might not be attractive to children who are not "sporty", which is the precise demographic that the program seeks to influence. Careful consideration therefore needs to be given to the prizes offered through the program to balance student interest and financial outlay. In some contexts there might be opportunity to offer inexpensive prizes, such as privilege-based incentives, and the relative acceptability of these

should be considered in further studies.

The lower acceptability of the B-Active program to the teachers than the children was largely a consequence of the additional responsibility associated with administering the program. However, only a low number of teachers were interviewed and hence the data might not be representative of the entire teacher group. Notwithstanding, the teachers interviewed expressed that most teachers already feel considerable pressure in their work environment and the addition of extra responsibilities is therefore not welcomed. There was a strong sentiment that for the program to be successful a "champion" was needed to drive and administer the program at the school level. Such a "champion" would provide clear directions to all stakeholders on how to engage with the program as well as provide ongoing encouragement and support for the parents, teachers and students in the use of the program. It was suggested that this is most essential at the introductory phase of the program until a 'culture' of participation is established, but also ongoing to facilitate engagement. Indeed, in a recent multi-component school-based PA intervention that yielded significant outcomes (Cohen et al., 2014), a large amount of effort was dedicated to supporting the teachers.

The majority of the students indicated that they felt their parents were not engaged in supporting them in the B-Active program and that parental involvement was minimal. These reflections by students are consistent with responses by the parents and may be indicative of the B-Active program being a school-based initiative. It is relevant to note that previous work by Trost et al. (2003) supports the notion that parental support is an important correlate of a child's PA. This suggests that in order to increase the success of the B-Active program, strategies to increase parents' engagement are desirable.

The focus of this study was acceptability of the B-Active program, however, it is acknowledged that even though the program might be acceptable to the students, this might not equate to program effectiveness as measured by the primary objective of increasing PA levels. While in this study half of the students indicated that they did more PA due to the program, a study involving objective measures is need to validate this report. It is noteworthy that while half of the students indicated that they did increase their PA as a consequence of participating in the program, the other half indicated they did not. In further studies it will be important to consider, as indicated by one parent, that many students are already highly active and therefore the B-Active

> *It is noteworthy that while half of the students indicated that they did increase their PA … in the program, the other half indicated they did not*

when initiating school-based interventions designed to increase PA in order to minimise increases in their administrative responsibilities. **TEACH**

program would likely to not produce further increases in PA levels. Future research should focus on less active children and the potential benefits of the B-Active program for them. Indeed, studies involving PA interventions commonly target schools located in low income areas as low socioeconomic status is associated with lower PA levels (Lubans et al., 2012).

A final consideration for future studies is the duration of the program. In the present study the B-Active program was conducted over 34 weeks. This is a long duration for the students, parents and teachers to stay motivated and engaged with the program, which may affect its acceptability. Further studies might consider a shorter duration, which might also alleviate the effects of seasonal variation on PA levels in the study design, although a shorter duration might not reflect potential long-term benefits (Cohen et al., 2014).

Conclusion

The students who participated in B-Active were accepting of the program and enjoyed participating in it. There is a need to objectively explore whether this level of acceptability translates to increased PA levels within the participating students. Parents and teachers were less accepting of the program than the children and increasing their level of engagement and 'buy-in' is important in future studies. In particular, teachers require support

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Fly'n'don't build: What we learned from our study of development projects in Nepal

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Everest. Sherpas. The world's only non-quadrilateral flag. The country? Nepal, of course. The nine Avondale College of Higher Education students who visited June 17 - July 15 learned much more about this landlocked nation, though. Rough roads ran beside raging rapids. Patriarchy and entrenched poverty. The caste system, the influence of climate change both impacting a vulnerable but proud people fighting for a better life.

The trip served as the practical component of one of our international poverty and development studies units. We'd previously completed other units in the course and prepared extensively throughout first semester for the trip. During our month in Nepal, we traversed 19 of its 75 districts to visit 15 villages, all beneficiaries of Adventist Development and Relief Agency (ADRA) projects.

The fieldwork took a different form from most short-term mission trips: we were monitoring and evaluating completed ADRA projects. It doesn't sound as exciting as building a church or a school, and in some ways, it wasn't. But as senior lecturer Brad Watson says, "It's much harder engaging in a process where someone else is feeling like they're the ones who 'did it,' and those foreigners were only tangential. As a feel-good activity, it doesn't work as well as other experiences, but it is providing an important service."

While the projects we evaluated were funded in Australia, our feedback would join a large body of research being presented to the British government's UK Aid. The kicker—we could influence millions of dollars of humanitarian funding. "Take it seriously, because ADRA takes it seriously," advised Simon Lewis, the ADRA Nepal country director at the time.

Throughout our travels, we found ourselves irresistibly drawn to the people of Nepal and their stories. Our translator, for example was a career woman in a patriarchal society. Malnourished

eight-year-old twins overlooked in a reasonably prosperous village, presented the challenge to provide help for them that would continue after we departed. Nepal's only all-female adventure company, was emerging with glowing hope for the future. An ambitious young man, graduating soon, will become the first person in his village to hold a tertiary degree. Another memorable man who asked us to tell our government to stop polluting, as we were causing climate change in his village. A confident women's group who excitedly told us that as microcredit programs gave them income, their husbands gave them respect.

These people are the real Nepal—no less a part of the country than the stones and snow of Everest. We went to help and were gratefully received. But we learned, too. We learned many fail to break the cycle of poverty because they simply lack the opportunity to do so. We learned to hope and to strive for a world where we can offer these opportunities to all. TEACH

> *Many fail to break the cycle of poverty because they simply lack the opportunity to do so. We learned to hope and to strive for a world where we can offer these opportunities to all*

A small business owner teaches Emma McCrow to use a manual sewing machine in Ghanjaripipal village, Nepal. Credit: Alexandra Radovan.

"Coach"

Jessica Lee
Primary Teacher, Macarthur Adventist College, Macquarie Fields, NSW

I'm sure when people look at me, their first thought isn't "Well, there's a footy coach for sure!". To be fair, footy coaching isn't something that I ever considered adding to my résumé, however, over the last 12 months I have had the pleasure (and the heartbreak) of coaching 6 differently aged teams across both rugby league and touch football.

> When they realised that I was "here for reals" they put me through my paces, just as I thought I was going to do to them

My first team—the boys, laughed when I showed up. Then they laughed some more when they realised that I really was their coach, and it wasn't a joke. When they realised that I was "here for reals" they put me through my paces, just as I thought I was going to do to them. Some had been on the volleyball team I was taxi driver for, so knew that I had minimal sporting skills—but they all wanted to find out just how little I knew.

However, I learnt from previous efforts, and had done some homework (including learning the rules—which is always handy for the coach to know!), brushed up on the scoring system and developed a vague idea of the game play of rugby sevens (7s).

But back to my first team—the Macarthur Adventist College Rugby 7s Primary school team. I envisioned a nice and easy start, a couple of gentle games and the team playing in harmony. Turns out, the reality of a team that had never played together, had only 1 hr coaching at school and a couple of kick about games in the street, was not going to be a 'nice and easy start'. I appointed a captain, he ran some warm up drills, and we knelt and prayed together before the boys took to the field. It was apparent that we (coach and team) were very 'fresh' —it was a tough day and we lost every game.

Despite the loss, the boys didn't turn on one another. They prayed together before every game, encouraged each other and shook hands with the winning team in each and every game. They were frustrated, they were disappointed, they were tired—but they continued on. I felt blessed to be able to have seen such heart, and so proud of them for the way they conducted themselves. I was proud to be their teacher.

The next time for 'the coach' was a bit more pressured. Grade 7 and 8 boys – these boys were

Under 15's Touch Football Team
Back Row - Wanyei Solitua , Clayton Lui, Dontay Perez, Tuli Palelei, Bobby Tapaatoutai, Mr Namakadre, Miss Lee
Front Row - Alfred Lenati, Atatu Phillips, Vasatchi Kasier, John Tokailagi

CIS Under 14's Rugby 9s Team with parent Mr Curuenavalu

good. They played together often and even had some wins under their belt. I felt way out of my depth, but followed my last 'coaching' tactics—I appointed a captain, he ran the drills. Again, we knelt and prayed before the boys took to the field. This more experienced team still supported each other and shook hands with the other teams: all the way through to them making the finals! While I would like to think that I had something to do with it, I know that it was 'all them'.

As the team prepared for the final, the boys were the only team from our school left in the competition. This time when they knelt to pray before their game, it was not only their team-mates beside them, but all the players from our other teams too, providing a circle of support and encouragement that 'raised these boys up'. Sadly, they lost the final amid some controversy. Even though they struggled with the ruling, the boys still congratulated the other team and shook hands with the 'ref' at the end of the game.

Yet still my coaching adventures continued. This time I moved to touch football coaching for high school aged girls. Again, I did my homework, learnt the rules and then went along for the ride! Whilst we lost every game that we played the team improved immensely (I can't wait to see what they do next year) and the girls grew as individuals too. There were other teams on the day competing from school, and the 15-year-old team made the final. Again, all our teams came together to pray before their games, thanking God for the opportunity to travel and play, and asking for his protection on the field.

Last week my coaching career ended (for now) when I took six of our boys (who had been selected from hundreds of young hopefuls) to training for their State Competition. We crowded into a borrowed 7-seater car and headed to training. After a long day of training and travelling, I treated the boys to dinner on the way home, and reflected on my time as 'coach'.

Not only was I blessed to have the privilege of being a primary school teacher coaching high school sport, I had been given the opportunity to get to know these amazing and inspiring young people in a personal way. Not only had I witnessed all our teams kneeling and praying before taking to the field (for each and every game) but here I was at dinner with six starving young men who, before eating, paused to say grace and thank God for the food, and for me.

As I sat watching the boys eating, I realised that I had witnessed something special while being a part of these sporting teams. I had seen amazingly open displays of honesty in faith, and the coming together of kids from many different backgrounds, united in prayer. I felt like I had been slapped in the face with the lesson I was just taught—and I had to ask myself, "Am I living my faith so openly? Am I witnessing to anyone I can? Am I including God in all that I do—not just when I need help?"

"What about my Christian friends who play cricket in a secular league—do they pray together before taking to the pitch?"

"What about those of us who eat out, do we pray together and thank God for the food and each other before we begin to eat?"

So I ask you, take some time today—pause. Ask yourself these questions too—perhaps even more. The answers might surprise you. TEACH

> *When they knelt to pray before their [finals] game, it was not only their team-mates beside them, but all the players from our other teams … a circle of support and encouragement*

Teen dreams: Avondale Alumni publish young adult novels

Brenton Stacey

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Publications by two Avondale alumni are not only providing stock for the young adult section of bookstores and libraries but also promoting creativity and literacy. Trudy Adams and Danielle Weiler, both graduates of 2007—Danielle served as president of the class—have published six novels between them.

> *Broken Melody tells of a girl torn between a dysfunctional past and a promising future. …* "*The battle in a person's mind*"

Trudy promoted creativity and literacy to young adults in Kurri Kurri at the launch of her third novel, *Broken Melody* (Even Before Publishing), this past year. She presented awards donated by local businesses and organisations for a writing competition she held in conjunction with the high school. *Broken Melody* tells of a girl torn between a dysfunctional past and a promising future. It explores "the battle in a person's mind when they have been consistently told they are worthless," but it also shows "that with help and time, that battle can be won."

Trudy published her first novel, *Desolate Beauty* (Ark House Press), in 2009. Her second, *Judging Meghan* (Even Before Publishing), followed in 2010.

When she is not writing, Trudy works as the coordinator of the Kurri Youth Centre and blogs—her topics cover a range of issues affecting young adults, including bullying, self-esteem and stress.

Danielle has published each of her novels—*Friendship on Fire* (2011), *Reckless* (2013) and *Assembly of Shapes*, released this year. She writes to encourage readers "to have hope in whatever situation they find themselves." Some readers, she says, find the themes tough, "but that's life." Her hope is readers "focus on what they can do to help these young adults." Danielle is currently writing a Christian young adult novel. Her aim: to make it "authentic and modern without being preachy."

Trudy and Danielle's novels are available through Amazon.com. **TEACH**

Trudy Adams

Danielle Weiler

Launch of "Teaching Well"[1]

Tom Frame

Professor and Director St Mark's National Theological Centre, Charles Sturt University, retired January, 2014, Visiting Professor, School of Humanities and Social Sciences, Australian Defence Force Academy, University of New South Wales, Canberra, NSW

It is common for studio actors to become film producers but less so for authors to become publishers. I have wondered why that is for some time. I don't think any of the publishers I have worked with over the past two decades as an author have written any books themselves. Could be mistaken but that is my recollection.

Since moving from authoring to publishing, I have experienced highs and lows and no shortage of surprises. Most of the rewards are hidden and personal … and that is how it should be. The publisher is midwife not parent. The widwife must remember the child isn't theirs. But I have come to appreciate the progeny of others and, as a former author, appreciate appeal and attractiveness with the eyes of an insider.

So as a one-time scribe and a survivor of several edited multi-author volumes, I warmly congratulate Ken and John on their achievement. It is considerable. Bringing together such a diverse group of contributors is difficult and demanding. They all want their own distinctive voice to be heard despite the spilt infinities; they all engage in special pleading and call it necessary emphasis; they all think their way of referencing the work of others is better or the best. I do not want to underestimate the complexity of producing a work of this kind and I do not want to understate the success Ken and John in delivering a book with a message that is clear, consistent and coherent.

Where does this book sit alongside comparable works? Don't be alarmed when I say it doesn't. It doesn't sit alongside comparable works because there are no comparable works. There are books on the principles of Christian education; there are volumes focusing on theories of Christian schooling. But we believe this is the first collection which examines the practice of teaching … an examination that seeks to observe the practice of teaching from the vantage point of several academic disciplines with the aid of perspectives arising from incredibly varied experiences. Let me digress with a little autobiography to make my point.

When I completed a Diploma of Education at Melbourne University in 1985, something that the Navy thought would make me a better recruit instructor (it didn't), I went away feeling disappointed that the course was unbalanced with too much emphasis on principles and theories (sociology, philosophy and psychology) and not enough on procedures and practicalities. It was not that the former were unimportant. It was, to my mind, a case of not enough investment in the latter. What do I bring as I stand before students; how does teaching lead to learning?

Two years ago Barton Books published a set of essays entitled "Ministry in Anglican Schools: Principles and Practicalities".

The focus on ministry was intended to inform and encourage everyone involved in ministry within a Christian educational setting – and it was received by those in the sector as a welcome addition to collected wisdom. We believe this book is another vital contribution to our understanding of what happens in the Christian educational setting – this time to the classroom and who teachers are.

There is very much a sense in the pages of "Teaching Well" that teaching is a divine calling – not just a profession and not merely an occupation – but a calling to which those called will answer in terms of how they applied their abilities and aptitudes.

This is a big book – a very big book – and I cannot canvas all it conveys in any meaningful way – other than to say that I believe it is a gift from God and I believe it will be a source of rich blessing. And for that, I thank God, Ken and John for the privilege of being the publisher and to having my own attitude and approach to teaching enriched and extended by the expertise and experience that I have encountered in these pages.
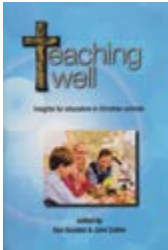
May God prosper the work of the hands who have contributed to this book.

The Lord be with you and those you teach. **TEACH**

> *There are books on the principles of Christian education; there are volumes focusing on theories of Christian schooling. But we believe this is the first collection which examines the practice of teaching*

BOOK REVIEWS

Teaching Well: Insights for educators in Christian schools

Ken Goodlet and John Collier (2014)
(Editors). Barton, ACT: Barton Books. 486pp
ISBN: 9781921577215

Graeme Perry

Formerly Dean, School of Graduate Studies, Adventist International Institute of Advanced Studies, Silang, Cavite, Philippines.

Goodlet and Collier, as editors of the work of 32 authors, have successfully pursued the major purpose for this task, which is to create a reference useful to Christians who teach. Goodlet in explanation asserts, "chapters should be centered on the learner and how learning takes place" so as to meet the needs of "educators , [who] will be looking for hints and strategies for tomorrow's lessons that can be used to inspire their teaching and engage their students" (p. iii).

Provided with a comprehensive response to their invitation to write, the editors have accomplished their goal by strategically: firstly, structuring this work into five parts:

> **Part A** – Forming a Christian mindset: A framework for our thinking
> **Part B** – Engaging Christianly with society: Ways for this thinking to interact with society
> **Part C** – Energising the school environment: How this engagement can invigorate the school in a general way
> **Part D** – Transforming the curriculum: By taking these thoughts into teaching specific disciplines
> **Part E** – Lifelong learning: Engaging this thinking outside the school

Secondly, ensuring chapter length is limited to 10-15 pages. This level of structure facilitates perusal, making themed chapters easily accessible to time poor readers 'snatching time' to read a passage when commuting, on holidays, or seeking only specific content of immediate interest or relevance to proximal teaching.

Each part however, begins with a chapter of foundational concepts allowing subsequent chapters to emerge as frameworks that can be clad with personal perspectives and contextual 'finishes'.

The learner focus of this work is exemplified in the first chapter *Children and Adolescence*, where Grant Maple describes that

> sin affects all that they think, say and do, but not in every respect. So, young people can do natural, moral, and civil good. This is the product of the vestigial image of God that they still carry and the common grace of God at work in the world. What they cannot do is justify themselves before God by these actions. For this they need the work of God in their lives bringing them back into a proper relationship with Him. (p. 19)

Teaching, planned to be part of God's interaction, will be based on a personalised worldview. Constructing or modifying a philosophy of education is supported by discussion of contrasting naturalistic and theistic alternatives by Martin Dowson. Of particular interest is Trevor Cooling's discussion of *Enabling the Bible to control learning*, particularly, the alignment of the self-authorship characteristic of 'constructivist' learning with biblical authority. This perspective can empower Christian educators to use this methodology with understanding. Citing Wright's analogy of Christians being like Shakespearean actors Cooling suggests:

> Christian learning is therefore … the process whereby Christians self-author meanings as they seek 'to write' (i.e. to live out) the last act of the story of God's relationship with humanity through interpreting the biblical text in ways that respect its constraining authority. (p. 60)

Sylvia Collinson implies familiarity with the way Jesus accomplished learning for his followers can inform alignment of current teaching methodologies with success – a non-traditional thinker, profferer of freedom of thought, observer, evaluator, model, earner of respect, sensitive to need, adaptable, mover from known to unknown, instigator of authentic experiences, being open to the serendipitous. Claire Smith draws on Paul's role as teacher to note the "primacy of love", demonstrated in "an awareness of the personal

dimension of teaching' to achieve learning."

Bruce Winter in addressing *Learning for living*, and Paul Burgis in considering the interface with 'secular society' both clarify challenges for our schools today, but also potential responses. Burgis specifically suggests three goals:

1. To present in some depth the range of philosophies within the community
2. To provide opportunities within the school where students can follow Christ
3. To bring prominent and able thinkers and role models into the schools who have engaged meaningfully with society

and develops applicable ways in which these can be accomplished.

More specific is Justine Toh's approach to doing 'Everyday Theology'—an exploration "that identifies the values, attitudes and beliefs that underpin the stuff of our everyday lives … and is also a means of sharing the Christian faith with non-believers in a post-Christian culture that can often be both hostile to and ignorant of the faith" (p. 128). This chapter draws resources from the iWorld, Steve Jobs and J. K. Rowling; considers a tWorld, positive and negative freedom, giftedness and stewardship, also including 'templates' as examples for classroom application.

To this reviewer John Collier appeared to, too quickly, dispatch the question "Can a school be church?", while also introducing a conflict in understanding when asserting that the main focus of schools is "not given to saving the lost." What follows however is a lucid discussion of the issues of establishing a shared community hub, an increasingly practiced attempt to interface unchurched school participants oriented to secular culture, into adaptive weekend worship and developing 'religious' spirituality in an on-campus location. Collier leaves a number of unanswered questions, but by reference to 2 Cor 5:20 and 1Thess 2:8 clearly expresses the potential level of commitment which can articulate students through school and para-church organisations into adult service and church participation.

Following chapters address whole of school issues—chaplaincy, governance, leadership, motivation, special education, service and the community—then school curriculum issues and perspectives on the teaching of specific disciplines. It is in these chapters that the individualised perspectives of authors probably become more evident. Collier states: "we have not sought to conform the various voices to a particular viewpoint, provided they remained robustly evangelical in their outlook" (p. v). After establishing in *A Christian Mind* "that subjects should be conceptualised in reference to the overarching story of Jesus Christ, rather than finding their whole meaning within the closed system of the material world" (p. 71), Ruby Holland argues for applying a philosophy of critical realism to curriculum formation within a post-modern, post Christian era, yet addresses potential weaknesses of this choice. Susan Goodlet with attached passion propounds the significance of *Cultures of Thinking* in the classroom, how it informs Christian teaching and affirmingly illustrates how she has implemented it in primary learning.

An explanation of the reviewer's limited comment on subject-focused chapters is past involvement in mathematics and science teaching. Stronks, reflecting in the foreword on questions that commonly arise in discussions of Christian schooling muses,

> If it is true that we believe, that the Christian school is outstandingly positioned to teach science facts and how these facts are related to each other, how might we do so and at the same time show how these point beyond themselves to metaphysics? … What is the relationship between Science and the Bible? (p. i)

This question of relationship emerges from the secular modernist culture typified by the 'New Atheism' that challenges supernatural reality and asserts the supremacy of human rationality. As a consequence, this conflict of ideas interlinking with the debate on origins, attracts broad attention.

Frank Stootman in *The sciences* chapter, after distinguishing the material and non-material components of the universe, develops awareness of popular views of science, then asserts that the existence of function and purpose, even at a cellular level, requires transcendence from the material to the metaphysical. A discrediting of natural selection as 'the' evolutionary mechanism is mounted based on Pagel's computer simulation evidence and that researcher's assertion of the

need for sudden specific changes (accelerated evolution) that "opens new metaphysical doors beyond naturalism" (p. 344). Stootman claims "Biblically, of course there is no indication of how God created, just that a person with a mind is involved in creating what is new." No reference to a theistic evolutionary approach is clarified and the reader is left to resolve Creation at a personal level. In discussing the nature of knowledge however, Stootman suggests, "Few teach science as an extension of how we can know alongside historical revelation, experienced relationships and integration of knowledge." Illustrations of some teaching strategies for developing an understanding of scientific knowledge are included.

Wondering whether this book will challenge, inform and strengthen your perception of the potential of further development of Christian schools and schooling? Read Colliers *Introduction*, based around Jensen's claims that

> I believe that one of our lacks in the past 50 years has been a failure to out-think the secular world and to demonstrate that the gospel and its implications more than make sense of human experience. … We need our best thinkers to engage with the thought forms of the world around us as part of our evangelism. … an example of this is the field of education. (cited p. 1)

Collier's statement of the mission of Christian schools can re-focus, re-energise and inspire attachment to that 'mission' and motivate a personal search for new conceptual linkages and perceptions from the ideas of these God gifted authors who support—Teaching Well. **TEACH**
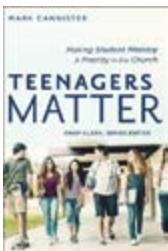
Teenagers Matter: Making Student Ministry a Priority in the Church

Mark Cannister (2013) Grand Rapids, MI: Baker Academic. 288pp

ISBN 9780801048524

Barry Gane

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Mark Cannister, Professor of Christian Ministries at Gordon College, has for decades been actively involved in ministry to teens and at the same time served as chair of the Association of Youth Ministry Educators. He has been in the thick of academic discussion and the field practice of ministry to youth. He has contributed immensely to the leadership development of those who serve youth at the local church level.

Cannister contends that there needs to be an attitudinal shift in the leaders of the church. They need to acknowledge that teenagers matter! And out of this shift will come a clarity of purpose in ministry to youth, a growth of genuine relationships, and above all a transformation that is lasting in the youth themselves.

Youth Ministry tends to die away as leaders burn out. Cannister asserts that when teenagers matter – ministry thrives and this happens because parents, teachers and other significant adults recognize the transformation that is taking place in young lives. Their support and involvement is captured, consequently, load is distributed, leadership stress is reduced, and youth ministry is sustainable.

Cannister reminds the reader that teenagers are involved in identity formation and he uses James Marcia's theory involving Diffusion, Foreclosure, Moratorium and Achievement, to develop his perceptions. He sees these four statuses as overlapping with faith formation and reminds the reader that moratoria and disequilibrium are essential parts of the faith development process and reminds us of the necessity of creating space for moratoria.

Cannister claims that when teenagers matter, ministry thrives because it is well resourced. A church that believes teenagers matter sees all teenagers both inside and outside the church as important. It therefore becomes important to develop different ministries to meet different needs. It is in this area of resourcing that Cannister addresses the disparity in wages between youth pastors and teachers. I believe that this section is irrelevant to the reader outside of North America, as

usually, there is very little difference in wages paid to teachers and those involved in paid ministry in other places.

Although the book is written very much for the North American market there are some sections that are universally helpful. In particular there is a 'health check' that addresses the question, "Are you thriving in ministry?"

One of the areas that create burnout in most people who work with youth, is knowing what to do week to week, and from one event to the next. So often people find this a constant demand or just a daunting ongoing process. Cannister includes a chapter called "Programming is Simple." It soon becomes clear that by simple he means not complicated rather than easy. In this chapter he gives numerous examples from churches across North America. He challenges the reader to focus on process rather than product and to keep people central. It is important that teenagers be integrated at all levels in the local church and that parents be involved in much of the ministry offered to their offspring. He is sure however, that success comes to those who keep things as uncomplicated as possible.

Although this book is written primarily for are youth leaders in the local church many of the principles will spill over into the classroom. I believe teachers who recognize teaching as ministry will find the chapter on transformation particularly useful, and I would recommend the book if only for that chapter. Most Christian teachers care about the spiritual journey of their students and many become involved in their lives outside of the classroom. The "What?" and "How to do that?", is covered well in this book. The suggestions and guidelines offered are filtered opinions, outcomes of analysis by practitioners of acknowledged excellence from different identified studies, and interviews with youth workers sharing accumulated wisdom.

The author wants people who work with youth to become dissatisfied with "good enough" and inspires striving for excellence because—TEENAGERS MATTER. **TEACH**

Eating Heaven: Spirituality at the Table

Simon Carey Holt (2013). Brunswick East, Victoria: Acorn Press. 159pp

ISBN: 9780987428639

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Eating Heaven, short listed for the 2014 Australian Christian Book of the Year awards, blends both anecdotal and scholarly research to produce a highly readable commentary on eating at "the tables of daily life."

Simon Carey Holt has written this book from perspectives that have been formed from his past careers and life experiences as a trained chef, university lecturer and researcher in urban sociology and spirituality, and most recently, the senior minister at the Collins Street Baptist Church in Melbourne. Holt emphasises that "Eating is a sacred business . . . a spiritual act," and keeps returning to the themes that to eat well, "is not to eat extravagantly, but to do so mindfully, respectfully and justly."

Each chapter of *Eating Heaven* is dedicated to a particular social setting of eating activity, and raises issues surrounding tensions of competing values faced in everyday life. The first introductory chapter attempts to establish the links between eating and spirituality, and "the role that food plays in any society as an expression of culture and a maker of meaning." Holt claims that while eating together is now challenged, nevertheless the family kitchen table is a formative place where individual identity is shaped, and "tastes and prejudices inherited."

From the kitchen table, Holt moves to the backyard, detailing changes that have occurred in Australia's shrinking backyards, but where the barbecue still remains a national Australian icon, and a "quintessential 'emblem
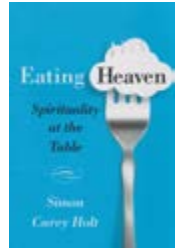
of Australian hospitality.'" While barbecues are considered an informal way of establishing relationships, there are deeper meanings to the barbecue culture that he explores.

Other chapters are dedicated to the increasing café culture emerging in Australia; the conflicting values of "eating, beauty and justice" when dining at the Five-star Table; the creative contribution that a vocation at the "culinary workbench" provides, hand-in-hand with the demands of the long and unsociable work hours intrinsic to the hospitality industry, but which draws diner and cook together.

The two chapters, The Festive Table and The Multicultural Table, share topics of food rituals and feasting surrounding various cultural celebrations and mourning, emphasising both cultural differences and social inclusion, with a "call to a deeper and more transformative multiculturalism."

The final two chapters continue with a strong spiritual focus in describing elements of The Communion Table, and a reiteration of Eating Heaven. Holt views the communion table as "the table of Jesus" and observes that Jesus was a man of "the multiple tables of life," where He shared the 'good news' and called on His believers to follow suit. The last supper, shared by Jesus with His disciples is considered by Holt as the "signature sacrament," and he goes so far as to propose that Jesus may have been crucified because of where and with whom He chose to eat. Holt claims that while the title of his book might be considered by many as an "audacious one," nevertheless, the practice of eating together at the shared table, "is one that grounds us deeply in the 'sustaining earth' while always in reach of the 'highest heaven.'"

Eating Heaven has wide readership appeal: whether as sociologists, social welfare workers, parents socialising their children through conversations and courtesies at the meal table; or others going about their everyday activities of civic mindedness, looking out for the needy within our communities, working towards social and environmental sustainability.

Christian educators, in interpreting and implementing the new Australian Curriculum, more particularly if teaching in learning areas of the Humanities and Social Sciences; the

Food and Nutrition component of Health and Physical Education; or Food Technologies in the Technologies learning area, will find this book to be a valuable resource for embedding spiritual values in their teaching for "promoting the intellectual, physical, moral, spiritual and aesthetic development of young Australians" (cited in Wiltshire, 2014, October 17, para. 5), as stipulated in the Melbourne Declaration on Educational Goals for Young Australians, the foundation for the current Australian Curriculum. Wiltshire in his recent review of the Australian Curriculum, found little evidence however of spirituality being incorporated in the actual curriculum.

Simon Carey Holt calls us to examine how the everyday and ordinary activity of eating can be used to exercise the gift of hospitality. In so doing, "we celebrate beauty and express solidarity with those who are broken and hungry," while anticipating the heavenly banquet. **TEACH**

Reference
Wiltshire, K. (2014, October 17). National curriculum review has come up with evidence-based advice. The Australian, Opinion Section.

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