

Premier’s Hicksons Lawyers Health Education and Wellbeing Scholarship

A self-determined approach to daily physical activity and healthy active living.

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**Introduction**

The aim of this study tour was to investigate various strategies and programs, which encourage self-determined participation when engaging in daily physical activity and also support for overweight or obese children and their families, resulting in improved health education and wellbeing. With the growing trend of Australian children not meeting [Australia’s Physical Activity and Sedentary Behaviour Guidelines](http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-phys-act-guidelines) and childhood obesity rates continuing to steadily rise, it was seen as a priority as a physical educator, to investigate possible solutions to these issues. Research partners such as the University of Newcastle and Australian Catholic University have been working successfully with New South Wales (NSW) schools to create an evidence-base and develop strategies and programs to address these priority areas. Through research, it was seen as imperative to visit countries from similar cultures and contexts to see what is happening in the world of engaging children and families in daily physical activity. Strategies using the [Theory of Self-Determination](http://selfdeterminationtheory.org/theory/) (SDT), [(competence, relatedness, autonomy)](http://selfdeterminationtheory.org/authors/chris-lonsdale/) and the notion of promoting Healthy Active Living amongst families and communities became the clear focus that needed to be explored through further research.

# Focus of Study

There has been a significant amount of research and creation of strategies / programs by researchers both in Australia and around the world regarding the growing lack of moderate-to-vigorous physical activity (MVPA) amongst children both in and out of the school context. The New South Wales Auditor-General’s [Performance Audit Report into Physical Activity in Government Primary Schools](https://www.audit.nsw.gov.au/news/news-archive/2012/physical-activity-in-government-primary-schools) and studies undertaken in NSW schools by Professor David Lubans (University of Newcastle) and Professor Chris Lonsdale (Australian Catholic University), highlighted the concerns and challenges faced by educators when planning for quality opportunities for students to engage in daily MVPA. The successes of strategies and programs that were formulated as a result of Professor Luban’s and Professor Lonsdale’s research ([AMPED](http://selfdeterminationtheory.org/wp-content/uploads/2016/07/2016_Lonsdale-et-al-AMPED-protocol.pdf) / [Resistance Training for Teens](https://www.youtube.com/watch?v=MANvrS6DUQk) / [Burn 2 Learn](https://www.newcastle.edu.au/highlights/our-researchers/education-arts/education/fit-for-learning) / [SAAFE Principles](https://www.achpernsw.com.au/how-saafe-are-your-pe-lessons/) / [iPLAY (Primary Schools)](https://www.youtube.com/watch?v=rSMAlhOBOxQ) inspired my further research into what was happening internationally regarding the relationship between self-determined motivation and daily physical activity amongst students. This study tour took me to Texas (USA), Ontario, Victoria and Whistler (Canada) and Loughborough and Cambridge (England). I visited universities and schools and met with experts in the fields of self-determination, providing frameworks to encourage participation in daily physical activity and education related to healthy active living.

# Significant Learning

## Austin Independent School District Office and CATCH Head Office (Austin, Texas)

I met with Michelle Rusnack who is the Austin Independent School Health Co-ordinator. She oversees curriculum design and planning for 130 Elementary, Middle and High Schools. The organisation adheres to the [Whole School, Whole Community, Whole Child](https://www.austinisd.org/pe-health/coordinated-school-health) approach, which aligns with the priorities set by the United States Centers for Disease Control and Prevention. Points of difference in the organisation of Physical Education (PE) curriculum regarding NSW Primary Schools include:

* each elementary school has an appointed PE teacher who is responsible for ensuring that programs are taught effectively, assessment procedures are performed correctly and results are monitored
* standardised fitness testing using [Fitness Gram](http://www.cooperinstitute.org/fitnessgram) is a significant part of the physical activity program. These tests are performed at the beginning and end of each year and individual, class and whole school results are consistently monitored and support is potentially offered to those who are considered at health risk
* rigid assessment is performed across each school in the district, which requires each school to complete the same task for each area of assessment during set weeks.

I also met with Peter Cribb who is one of the USA’s leaders in health education and physical activity program design. He is a Director and one of the original pioneers in the design and evolution of [CATCH Global Foundation](https://catchinfo.org/about/) (Co-ordinated Approach to Child Health). Some successes seen by the implementation of the program have included:

* development of a K-8 [evidence-based program](https://catchinfo.org/research/), underpinned by the [CATCH Promise](https://catchinfo.org/catch-promise/), which works to promote physical activity, healthy food choices, prevent tobacco smoking and encourage sun safety
* assistance for individual schools and whole school communities (Elementary and Middle Schools) to increase the amount of healthy food choices made by students, increase MVPA during Physical Education (PE) lessons and empower students and staff with the knowledge, understanding and strategies to take lifelong ownership of their own health outcomes
* empowering all school community stakeholders with the necessary resources to build healthy active school communities
* improvement of the proportion of students classified as in 'Healthy Fitness Zone', incorporating fitness testing measures by using [Fitness Gram](http://www.cooperinstitute.org/fitnessgram)
* providing staff with the necessary training, resources and ongoing support to ensure long lasting success of program facilitation.

The strategies used by CATCH to involve all school community stakeholders in working towards the common goal of healthy active living could be utilised by NSW school communities. High Schools could potentially develop some common language and resources with their partner primary schools to support education and opportunities regarding healthy food choices, the facilitation of physical activities and healthy living messages.

CATCH has successfully worked with school communities across the USA, South America and Canada. The website also has plenty of outstanding free [resources](https://catch.org/).

Pillow Elementary School and The University of Texas Health Science Center / Michael and Susan Dell Center for Healthy Living (Austin, Texas)

I had a phone interview with Shanna Green (Del Valle Middle School CATCH Champion) to discuss the challenges of implementing the program. She started by attending faculty meetings to introduce the idea of the co-ordinated school approach. Initially starting with a team of four teachers, the team grew to 24 as the school community came on board. Part of the program is for all staff to be giving healthy eating and lifestyle messages to the students. Staff were only encouraged to discuss an area,in which they felt comfortable and this allowed each member to feel like they had something to contribute. The school also ensured that there was a CATCH community event once per month and this involved a Health Fair, Walk and Talk and attaching to other faculty events where healthy food options were provided.

I then visited Pillow Elementary School to meet with Pat Werner (Austin Independent School Health/PE Curriculum Director). It was interesting to see the evidence of the CATCH co-ordinated whole school approach. The [GO, SLOW, WHOA](https://catch.org/lessons/grades-3-to-5-physical-education-activities-go-slow-whoa-eat-smart-games) signage posted around the school, the labelling of each specific food served in the cafeteria for ease of recognition and link to prior learning and also a message board, which evidenced the whole school promotion of healthy active living. It was positive to witness students and staff, successfully prioritising such an important area and highlighted the fact that this approach could be met with some success in NSW school communities.

### Visit to It’sTimeTexas (Austin, Texas)

I visited It's Time Texas (ITT) to meet Baker Harrell (Founder and CEO) and Hillary Kotrla (Teach Healthier After School Co-ordinator). This organisation facilitates a successful after school physical activity and nutrition education program across a range of school districts, targeted district soccer program (requested by the school district community) and is moving towards wider participation.

ITT works to ensure that their after-school program instructors deliver quality physical activity and nutrition education programs to students by recruiting young staff (mostly from the local University of Texas Personal Development, Health and Physical Education teaching program) and providing training and ongoing mentoring support for their team of 35 instructors and three supervisors. The positives of this program include: up to four sessions per week at some sites, buses provided to transport students to designated venues and the facilitation of programs for up to three hours (with varying structures) whilst students are in care waiting to be picked up by parents. The main challenge discussed was the age / experience of staff to work with at times, challenging groups of students.

This may suggest that staff at existing after-school caring organisations based at NSW schools may benefit from possible training and the provision of targeted resourcing to improve their confidence and capacity to deliver quality physical activity options and messages relating to healthy active living.

### High School Visits (Ontario, Canada): Collingwood Collegiate Secondary School and Lester B. Pearson High School Visit

I met Daryl Sproule (Head of the PE faculty, Collingwood Collegiate). Their elective classes demonstrated a very clear focus on fitness, which offer some high intensity training, education on principles relating to exercise science and above all, some engaging and fun activities.

I also met Joel Zinn (Lester B. Pearson High School), where I participated in a Period 0 fitness session before school. This is an approach to give students the opportunity to engage in structured High Intensity Interval Training (HIIT Fitness) for 30 minutes before school. This happens every morning for those students who want to attend. Students wore heart rate monitors for the entire activity and their live results were projected onto a screen. Students were highly engaged in where their heart rates were sitting throughout the lesson and each student was keen to see their average result post activity.The school also incorporates a fitness infusion into every Health and Physical Education (PE) lesson (for the first 20 minutes).

These visits reinforced the importance of incorporating HIIT fitness activities into daily school routines. Opportunities before school, during breaks and during class time could be seen as effective measures to engage students in fitness infusions. The use of technologies such as heart rate monitors can also be seen as a key motivator towards improving student engagement. These strategies also align with current research relating to this type of physical activity and its potential positive effects on cognitive function in adolescents, as discussed in this [Burn 2 Learn](https://www.newcastle.edu.au/highlights/our-researchers/education-arts/education/fit-for-learning) project information.

### Visit to Spectrum Community School and Meeting with Kate Baker (Victoria, Canada)

I visited Spectrum Community School to meet Deanna Wilton and Richel Condie who have been facilitating a program to engage the female population of the school. They initiated a Women's Health Activity Movement (WHAM) class for Year 11 and 12 girls. This class offers a range of PE activities structured to student choice and also engages a variety of other activities (when funding is available from the University of Victoria) ranging from Belly Dancing, Boxercise, Dragon Boating, Wellness Self-Massage, Bubble Soccer, Hiking, Ice Skating, Yoga, Aerobics, Tai Chi, Indoor Rock Climbing, Curling, leadership activities and more. Students had also started participating in some of these activities beyond the school setting. This highlights the importance of providing a range of engaging opportunities for female students to explore, which may result in participation beyond their school years.

After my visit to Spectrum I met Kate Baker from Oak Bay High School. She has been experimenting with the use of technology to connect with her students. Through the use of [Wahoo heart rate monitors](https://www.wahoofitness.com/devices/heart-rate-monitors/?rmsrc=1&rmatt=tsid:1027813|cid:741198622|agid:56955708160|tid:kwd-302033826897|crid:267133071259|nw:g|rnd:9021583494936202964|dvc:c|adp:1t2|mt:e|loc:2124&gclid=EAIaIQobChMI5L251a7_2gIVgv5kCh3HNAXoEAAYAiAAEgIeaPD_BwE), its related application and Instagram, she has found a way to engage the students during PE lessons and beyond the school setting. Kate posts student activity charts made available through the application on Instagram, during and post lessons. She doesn’t force students to wear the monitors or display results, they will only participate in this if they feel comfortable. She has found that students then engage their parents and attract the attention of younger students who may be thinking of joining the class when they reach their senior years. This approach could be seen as effective when attempting to engage students beyond the classroom, build stronger school communities and highlight to parents what is happening regarding curriculum and school activities.

### University of Victoria - UVic (Victoria, Canada) - Meetings with Professor Sandra Gibbons, Dr Ryan Rhodes and Dr PJ Naylor

I met with Professor Sandra Gibbons, who has dedicated her career to developing strategies to encourage female participation in physical activity. Her research has suggested that females fall off the radar early when it comes to being intrinsically motivated to participate in PE at school and educators need to be tailoring programs to suit. She also suggests that females are more likely not to enjoy athletic program style mainstream sports, so other options such as fun / hybrid games and a range of activities need to be offered (such as provided in Spectrum’s WHAM class). Professor Gibbons also bases her teaching methodologies and program development around the theory of self-determination. She reinforces the need for females to feel a connection to the type of activity that they are doing and the building of social connections is a very important part of this process. This could be achieved in NSW schools by offering a range of alternative opportunities for female students to choose their activities and have the opportunity to socialise and build friendships, without feeling the pressure of competing in mainstream sports.

I met Dr Ryan Rhodes, whose area of research looks for solutions to engage inactive families. Dr Rhodes said that his latest project targets inactive families, who are invited to participate in the trial (he discussed the challenges of identifying and getting them on board) and are placed in different intervention groups. Families firstly have the opportunity to brainstorm and discuss what they may want to do and then given some options and information about their choices.The next group go through some weekly planning and the third group plan and look at attaching their activity to existing weekly social events (habit formation), such as swimming Sundays or going for a walk after dinner. This meeting highlighted some potential positive strategies that could be utilised when engagaing families to assist with health active lifestyle changes.This is an area where most researchers internationally would agree is difficult to achieve, when looking to effect long-term and sutained behavioural changes with inactive families.

I also met Dr Patti-Jean Naylor, who has dedicated her life to researching and developing best practice models regarding child participation in physical activity and making healthy nutritional choices in schools. Dr Naylor was heavily involved in the early development and implementation of a program called [Action Schools BC](https://www.actionschoolsbc.ca/). Action Schools BC (British Columbia) is a program, which aims to support elementary schools in their education surrounding healthy food choices and engagement in daily physical activity. Some significant areas that the program has addressed are, [Live 5-2-1-0](https://www.live5210.ca/) (education surrounding fruit and vegetables screen time and sugary drinks), [Sip Smart](https://healthyschoolsbc.ca/program/298/sip-smart-bc) (education surrounding sugary drinks), mental health, physical activity resources and also the building of [physical literacy](http://physicalliteracy.ca/). The creation of leadership roles for older students to mentor younger students is also encouraged. Another approach where Dr Naylor has seen success is called ‘Parents Playing on Purpose’. This is where parents are taught how to play games with their kids and are encouraged to work within the school during recess, lunch, before, and after school and assist with the organisation of activities. This is an area that could be further explored in NSW Primary Schools.

### Canada Health PE Research Council Forum (Whistler, Canada)

The keynote speaker was Dr Chunlei Lu (Brock University, Ontario) who is an expert in the research areas of Mindfulness and integrating the eastern model into health and physical activity in western cultures. Dr Lu provided some interesting and relevant perspectives on holistic health and physical activity:

* western PE approaches value a strong heart and energy expenditure to reach a heart rate target as most important, whereas energy saving and combining movement activities such as Tai Chi and Yoga are crucial for emotional balance and holistic health (interesting point)
* yoga is frowned upon in some contexts and looked at as a religion, when it is actually a wisdom.

He acknowledges that physical and health literacies need to be at the cornerstone for health educators, however these teachings need to integrate with teaching healthy habit-forming behaviours (potential daily activities such as Tai Chi, Yoga and Mindfulness). These strategies could be useful when designing programs for students (particularly females) who may prefer a lower impact and less competitive activity option.

### Visit to University of Loughborough (England, UK)

In Loughborough I met Professors Lorraine Cale (Associate Dean and Professor in Physical Education and Sport Pedagogy) and Jo Harris (Director of Teacher Education and reader in Physical Education and Sport Pedagogy) in the [School of Sport, Exercise and Health Sciences](http://www.lboro.ac.uk/departments/ssehs/). Professors’ Cale and Harris discussed how regardless of the development opportunities and support that had become available to teachers, the same old issues were still causing problems in the delivery of quality PDHPE programs. Constraints such as not enough time for development, more accountability requirements and literacy and numeracy being the key focus in schools, was still leading to physical activity being the last thing on the agenda. They also published a new book, [‘Promoting Active Lifestyles in Schools’](http://www.lboro.ac.uk/departments/ssehs/news/2018/promoting-active-lifestyles-in-schools.html)**,** which gives schools a comprehensive guide to support physical and health education in schools. Professors Cale and Harris reinforced the importance of a shift in mindset for some members of staff when looking to involve all stakeholders in the school community to get on board with delivering the message of healthy active living to students.

I met Oliver Harper, a current PhD student, who is concerned with the student voice and their understanding regarding health education. He has been working closely with teachers and 11 and 12 year-old school students. He has worked to gain a better understanding of what their opinions of holistic health are and how that links to their education and experiences regarding health and physical education. The student research data indicated they were more aware of the impacts of negative health behaviours (deficit perspective) rather than what types of daily behaviours contributed towards a healthy active living. After interviewing staff, he found that female teachers seemed to be teaching more holistic health perspectives than males and sports science trained teachers taught more from a physiological perspective (nutrition, physical activity, fitness testing) and not in areas regarding the components of health. This is where it could be said that high school PE staff should work closely with their partner primary schools to ensure that more consistency in these areas is achieved and the positive view of holistic health is fostered, as mandated by the NSW K-10 PDHPE syllabus.

### University of Cambridge (England, UK) - Meetings with and presentation to the CEDAR Team

I met with [CEDAR](http://www.cedar.iph.cam.ac.uk/) (Centre for Diet and Activity Research) team at the [Cambridge University Addenbrooke Hospital](https://www.cuh.nhs.uk/addenbrookes-hospital) and had a discussion with team leader Dr Esther Van Slujis ([Epidemiology Unit Program](http://www.cedar.iph.cam.ac.uk/research/behavioural-epidemiology-of-young-peoples-activity-behaviour/) Lead) who gave me an overview of their line of research. The team looks at factors that influence physical activity, associated behaviours and how they change over time. Dr Van Slujis pointed out that research evidence suggests that physical activity levels decline in children from mid-way through primary school into adulthood and activity levels drop during school breaks, afternoons and on weekends. Dr Van Slujis also discussed the challenges that researchers face trying to engage families in intervention research projects, as nobody around the world has really understood how engage them on a large enough scale.

I then met with Dr Helen Brown and Dr Stephanie Jong to discuss their project, [Go Active](http://www.goactive-uk.com/). This is a study, which is assessing the implementation of behaviour-change techniques (e.g. goal setting behaviour, social support, rewards and role modelling) for Year 9 students. Students were required to participate in peer-led activities, use teaching resources such as activity cards and some, but minimal equipment. Peer leaders would encourage students to engage in as many activities as possible and they could log their own points and receive incentive rewards such as t-shirts and vouchers. Data has also been collected regarding activity levels during afternoons and on weekends. At this point it has been proposed that the effectiveness of these interventions may have seen some success.

# Conclusion

Firstly, I would like to thank Hicksons Lawyers, the NSW Premier’s Office and the NSW Department of Education for providing me with such an opportunity. This tour has highlighted some interesting perspectives and strategies that have either proven to be effective or show promise when looking to address the emerging issues surrounding physical inactivity and weight control issues amongst children and adolescents.

It is crucial that schools and educators engage with the universities and participate in their research projects where possible (it is advised that primary schools consider joining [iPLAY](https://iplay.org.au/)). This will ensure that experts in this area have the required access to assist teachers towards building their skill sets, developing strategies and resources to drive planning and program implementation.

It could also be said that children need to be well informed at the youngest possible age that healthy active living is a priority. Students need to have the opportunities to develop the tools to take ownership and responsibility of their own health beyond the school environment and to also encourage others, especially friends and family members. This needs to be incorporated with creating the necessary awareness of what is required for all members of the community to meet the National Physical Activity and Sedentary Behaviour Guidelines and develop levels of physical literacy. There were some clear themes amongst many of the experts that I encountered regarding the importance of engaging the whole of school community to commit to reinforcing messages relating to healthy active living. Strategies to engage the necessary stakeholders could include:

* utilising the expertise of high school PE staff to work wore extensively in the support of their partner primary schools regarding the planning and delivery of health, physical education and sport programs
* designing PE and Sport programs, which encourage self-determined participation and engagement in improving holistic health outcomes
* creating opportunities for female students to develop social connections and engage in meaningful physical activity
* explicit education for parents regarding simple and effective ways to be active as a family. This could also involve engaging community partners to assist in this process
* creating student leadership teams to work with younger students to educate and reinforce messages regarding healthy active living
* using technology such as heart rate monitors and applications to engage students in daily physical activity
* using after-school care environments as an additional opportunity to educate students regarding healthy active living and provide opportunities to engage in quality and meaningful physical activities
* when designing PE programs for the new NSW K-10 PDHPE syllabus, models such as Game Sense and Sport Education (SEPEP) should be used as a cornerstone for planning.

The expertise of high school PE teachers could be more effectively utilised to support partner primary schools to design and develop curriculum, strategies, resources and provide support to access existing programs and funding opportunities such as the [NSW Premier’s Sporting Challenge](https://app.education.nsw.gov.au/sport/psc) and [Sporting Schools](https://www.sportingschools.gov.au/).

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