School of Medical and Health Sciences
Public Health and Exercise and Sports Science Honours Projects

All eligible Honours students are invited to review the following project titles that have been offered by staff within the School of Medical and Health Sciences as potential Public Health and Exercise and Sports Science Honours projects. You are advised to consider projects that may be of interest to you, review any references that are provided to gain some additional insight into the area, and to then contact the nominated supervisor for additional information related to this project. Interested students are encouraged to contact this staff member as soon as possible, so they are well prepared to commence their Honours journey.

To ensure students have the best chance of success, it is important an Honours project is something that can be completed in the required period of time, with the appropriate supervision and with the necessary resources. As such the projects below have been assessed as meeting this criteria. However, if you have other interests that you believe may be suitable we would encourage you to speak to one of our academic staff with an interest in the area, or contact Dr Julie Dare (Public Health and Exercise and Sports Science Honours Coordinator) for further assistance.

We hope you find something that will excite you and allow both you and your supervisor to make a valuable contribution to the area of research.

For more information please contact:

Dr Julie Dare
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Supervisor/s	Project title	Research question/s	References
Prof Anthony Blazevich A/Prof Greg Haff Dr Fiona Iredale	Can we elicit post-activation potentiation after completing a full warm-up?	1. Is the improvement in muscular strength and power in the minutes after a 'conditioning activity' influenced by the intensity and duration of sports warm up? 2. Are potential improvements in strength and power after a 'conditioning activity' predicted by an athlete's strength and power characteristics?	MacIntosh, B., et al. (2012). Should postactivation potentiation be the goal of your warm-up? Applied Physiology, Nutrition & Metabolism, 37: 546–550. Wilson, C.M., et al. (2011). Meta-analysis of postactivation potentiation and power: effects of conditioning activity, volume, gender, rest periods, and training status. Journal of Strength and Conditioning Research, 27(3): 854-859.
Prof Anthony Blazevich A/Prof Amanda Devine	Are changes in muscle mass, strength and intra-muscular fat content of the knee extensors or ankle extensors important for improvements in lower-limb power and functional performance?	1. Is power output measured in vertical jump and stair climb tests most related to changes in force production, power production or intra-muscular fat content of the knee extensors or the ankle extensors (plantarflexors) in 40-60 year-old women? 2. Are changes in power output after a period of exercise training more associated with changes in force and power production of the knee extensors or the ankle extensors (plantarflexors)?	Reid, K.F. & Fielding, R.A. (2012). Skeletal Muscle Power: A critical determinant of physical functioning in older adults. Exercise and Sports Sciences Reviews, 40(1): 4–12. Stenroth, L., et al. (2015). Plantarflexor muscle–tendon properties are associated with mobility in healthy older adults. Journal of Gerontology A: Biological Science and Medical Science, 70(8): 996–1002.
A/Prof Amanda Devine Ms Ros Sambell	An examination of food provision in Early Years Education Services (long day care), in metropolitan Perth, Western Australia.	1. To determine the proportion of centres that are meeting 50% of the recommended servings of food groups based on the Australian Dietary Guidelines	Australian Children's Education and Care Quality Authority (ACEQUA). (2013). Introducing national quality framework, 2013. Retrieved from http://www.acecqa.gov.au/national-quality-

	N.B.The Honours student should have an interest in nutrition	recommendations for children 2-4 years, over three meal opportunities: morning tea, lunch and afternoon tea, whilst in care.	framework/introducing-the-national-quality-framework
A/Prof Amanda Devine Ruth Wallace Ms Ros Sambell	Cooking for Kids – a nutrition education/cooking skills intervention for Early Years food coordinators. ***NB The Honours student should have an interest in nutrition***	1. To determine if a nutrition education/cooking skills intervention lead by a chef/cook increased the nutrition knowledge and confidence of Early Years food coordinators.	Condransky, M., Graham, K., & Kamp, J. (2006). Cooking with a chef: An innovative program to improve mealtime practices and eating behaviours of caregivers of preschool children. *Journal of Nutrition Education Behaviour, 38,324-325.* Condransky, M., Williams, J., Catalano, P., & Griffin, S. (2011). Development of psychosocial scales for the impact of a culinary nutrition education program on cooking and healthful eating. *Journal of Nutrition Education Behaviour,43, 511-516.*
A/Prof Amanda Devine A/Prof Paul Chang	To establish through focus groups if a new innovative IT tool that allows motivational self-programmed messaging is of interest and value to adults who are trying to lose weight. ***N.B. The Honours student should have an interest in nutrition***	1. What is the level of interest in a new innovative IT tool that allows motivational self-programmed messaging in adults who are trying to lose weight? 2. What types of auditory messages could be personalised? 3. Would this concept provide support to achieve weight loss goals?	Aguilar-Martinez, A., Sole-Sedeno, J. M., Mancebo-Moreno, G., Medina, F. X., Carreras-Collado, R., & Saigi-Rubio, F. (2014). Use of mobile phones as a tool for weight loss: A systematic review. *Journal of Telemedicine and Telecare, 20*(6), 339-349. doi: 10.1177/1357633x14537777 Baranowski, T., & Frankel, L. (2012). Let's get technical! Gaming and technology for weight control and health promotion in children. *Childhood Obesity, 8*(1), 34-37. doi: 10.1089/chi.2011.0103

		4. What are the barriers and facilitators for using this tool to support weight loss? 5. How should the tool be designed to improve impact, desirability and ongoing use?	
Dr. Nicolas Hart Dr. Sophia Nimphius Dr. Tania Spiteri	Validity and Reliability of microtechnology to measure change of direction in sport.	1. Will microtechnology accurately detect low, medium and high changes of direction through a custom-made algorithm in the field of play? A validation study using video analysis. 2. Does microtechnology accurately and reliably measure the magnitude of acceleration and rotation of the football player; and can it indirectly correlate with ground reaction force? A validation and reliability study against gold-standard systems.	McNamara, D. J., Gabbett T. J., Chapman P., Naughton G., Farhart P. (2015). The Validity of Microsensors to Automatically Detect Bowling Events and Counts in Cricket Fast Bowlers. International Journal of Sports Physiology & Performance 10(1): 71-75. Gastin, P. B., Mclean O. C., Breed R. V., Spittle M. (2014). Tackle and impact detection in elite Australian football using wearable microsensor technology. Journal of Sports Sciences 32(10): 947-53. Gabbett, T., Jenkins D., Abernethy B. (2010). Physical collisions and injury during professional rugby league skills training. Journal of Science and Medicine in Sport 13(6): 578-83.
A/Prof Jacques Oosthuizen A/Prof Sue Reed	Noise exposure at sporting venues.	1. Do spectators at indoor sporting events perceive noise levels as excessively high and potentially damaging? 2. What are personal levels of noise exposure for spectators at indoor sporting venues?	Ramma , L., Petersen, L., and Singh, S. (2011). Vuvuzelas at South African soccer matches: Risks for spectators' hearing. *Noise Health, 13* (50): 71-75. Engard , D.J., D.R. Sandfort, R.W. Gotshall, &, Brazile, W.J. (2010). Noise exposure, characterization, and comparison of three football stadiums . *Journal of Occupational and Environmental Hygiene,* 7, 616-621.

A/Prof Jacques Oosthuizen A/Prof Sue Reed	Assessment of whistle noise output and noise exposure of referees.	1. Do referees perceive whistle noise levels as excessively high and potentially damaging? 2. What are the acoustic characteristics of commercially available referee whistles? 3. What are the personal levels of noise exposure for referees?	Flamme, G.A., & Williams, N. (2012). Sports officials' hearing status: Whistle use as a factor contributing to hearing trouble. *Journal of Occupational and Environmental Hygiene*, *10*(1), 1-10. doi: 0.1080/15459624.2012.736340**.**
A/Prof Annette Raynor Dr Erin Godecke Ms Fiona Iredale	The effect of exercise on cognitive and communication outcomes in people with chronic post stroke aphasia. ***NB. The Honours student must be an exercise scientist or accredited exercise physiologist with experience in exercise prescription and delivery and an interest in motor control and neuroscience.***	The primary aim of this study is to investigate the effects of a supervised eight week exercise program on executive function, communication activity and communicative quality of life for people with aphasia (PWA) after stroke. Specifically the following research questions will be addressed: 1. Does increased physical activity improve executive function in those with post stroke aphasia? 2. Does increased physical activity improve activity and impairment based communication outcomes in people with chronic aphasia?	Littbrand, H., Stenvall, M., & Rosendahl, E. (2011). Applicability and effects of physical exercise on physical and cognitive functions and activities of daily living among people with dementia. *American Journal of Physical Medicine and Rehabilitation*, *90* (6), 495-518. Pinter MM, and Brainin M. (2012). Rehabilitation after stroke in older people. *Maturitas*, *71*,104-108.

		3. Does increased physical activity improve stroke and aphasia related quality of life? A secondary aim of this study will be to examine the attitudes, perceptions and beliefs of people with aphasia regarding participation in a structured physical activity program.	
Assoc Professor Annette Raynor Ms Fiona Iredale	Use of visual feedback in clinical populations ***This Honours project will be suited to an Exercise Science or an Exercise Physiology graduate.***	1. Does the type of visual feedback provided to a client affect their ability to modify their movement pattern when performing a sit to stand task.	Lusardi, M.M. (2004). Functional performance in community living older adults. Journal of Geriatric Physical Therapy, 26(3): 14-22. Magill, R., and Anderson, D. (2012). The roles and uses of augmented feedback in motor skill acquisition. In N. Hodges and M. Williams (Eds.), Skill Acquisition in Sport: Research, Theory and practice (pp. 3-18). London: Routledge.
Dr Dianne Hawk Prof Donna Cross (Telethon Kids Institute)	The CyberSavvy project: Electronic image sharing (EIS) and young people. **Project 1** Part 1 of this project involves the Honours student analysing data which has been collected with focus groups of Year 9 students, exploring their perspectives on	**Part 1** 1. What do young people perceive to be the benefits and risks of EIS, between two individuals and within groups? 2. What is the influence of age, sex and school differences, relationship status, and image type on EIS between two individuals and within groups?	Further information about the CyberSavvy project can be found at http://telethonkids.org.au/our-research/projects-index/c/cyber-savvy/

	electronic image sharing. Depending on the results of this data analysis, the Honours student may conduct supplementary original research focusing on: (a) Environmental scan of current organisations and services that provide support to young people on EIS; (b) Investigation of attitudes, beliefs and norms surrounding appropriate and inappropriate EIS, in relation to age, sex, school characteristics, relationship status, image type (in-depth interviews or short survey); (c) Investigate potential sex differences that emerge in the findings (may be qualitative or quantitative); (d) What is the role of bystanders to EIS? Outcome to inform communication strategy and/or curriculum materials; (e) What are the major issues facing young people supporting their friends when they experience a negative outcome from EIS? Outcome to inform a practical resource re how to	3. What is the role of bystanders in EIS, between two individuals and within groups? 4. What advice and support regarding EIS do young people see as most and least effective? 5. What do young people perceive as practical support and advice from peers and friends re EIS, and how could this be improved? 6. How do young people think that adult support re EIS could be improved? 7. What current gaps (e.g. resources and support) currently exist? **Part 2** Research questions will be developed depending on the nature of the supplementary research in Part 2.	

	effectively support a friend in trouble/distress. There is additional scope for this supplementary research (Part 2) to fit with the Honours student's own interests.		

Dr Dianne Hawk Prof Donna Cross (Telethon Kids Institute)	The CyberSavvy project: Electronic image sharing (EIS) and young people. **Project 2** Part 1 of this project involves the Honours student analysing data which has been collected with Year 9 students during their participation in a design process in which as groups, they designed apps to address an aspect of electronic image sharing. Depending on the results of this data analysis, the Honours student may conduct supplementary original research focusing on *one* of the following areas: (a) Literature review of on the use of design thinking processes to collaborate with young people to identify and solve important issues in their lives; (b) Investigation of how young people's decision making about sending electronic images could be influenced 'in the moment' as they are engaged in a	**Part 1** 1. What do young people perceive to be the benefits and risks of EIS? 2. How do they prioritise or rank the benefits and risks in terms of level of concern or importance? 3. For each of the principle concerns, what is the range of potential approaches to addressing this using an app? 4. To what extent do their solutions rely on changing their own behaviours or influencing other's behaviours? How? 5. To what extent do their solutions rely on changing their own behaviours or influencing other's behaviours? 6. To what extent do young people's solutions incorporate support and advice from peers and friends? 7. To what extent do young people's solutions incorporate support and advice from adults? Which adults? Support/advice regarding what? Delivered how?	Further information about the CyberSavvy project can be found at http://telethonkids.org.au/our-research/projects-index/c/cyber-savvy/

	communication exchange on social media? (in-depth interviews or short survey) Outcome to inform communication strategy and development of information and communications technology (ICT); or (c) a related piece of supplementary research (Part 2) to fit with the Honours student's own interests.	**Part 2** Research questions will be developed depending on the nature of the supplementary research in Part 2.	
Dr Dianne Hawk Prof Donna Cross (Telethon Kids Institute)	The CyberSavvy project: Electronic image sharing (EIS) and young people. **Project 3** Part 1 of this project involves the Honours student conducting a multi-disciplinary literature review on the role of reflection time or imposed 'pauses' to influence decision making in daily life activities. This review will be undertaken to inform further inquiry into the need for and how to create such reflection time or pauses in the online environment in which communications and actions occur in a very rapid time frame.	**Part 1** 1. What disciplines are most relevant to this inquiry (in addition to psychology, organisation/management, design/architecture)? 2. What is the role of reflection or pause in decision making? 3. How is reflection embedded or structured into the psychosocial and physical realms? **Part 2** Research questions will be developed depending on the nature of the supplementary research in Part 2.	Further information about the CyberSavvy project can be found at http://telethonkids.org.au/our-research/projects-index/c/cyber-savvy/

	Depending on the results of this review, the Honours student may conduct supplementary original research focusing on *one* of the following areas: (a) Investigation of how young people's decision making about sending electronic images could be influenced 'in the moment' as they are engaged in a communication exchange on social media? Does this involve an opportunity to reflect? What form might that take? (in-depth interviews or short survey) Outcome to inform communication strategy and development of information and communications technology (ICT); or (b) a related piece of supplementary research (Part 2) to fit with the Honours student's own interests.		