Submission No 47

INQUIRY INTO REVIEW OF THE NEW SOUTH WALES SCHOOL CURRICULUM

Organisation: The University of Newcastle, Priority Research Centre for Physical Activity and Nutrition

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PRCPAN
PRIORITY RESEARCH CENTRE FOR PHYSICAL ACTIVITY AND NUTRITION

THE UNIVERSITY OF NEWCASTLE AUSTRALIA

7th August 2020

A submission to the Inquiry into the review of the New South Wales school curriculum on behalf of the Priority Research Centre for Physical Activity and Nutrition (PRCPAN), The University of Newcastle.

The Need for an Integrated Approach to Nutrition Education when Establishing the New Syllabuses

We thank you for the opportunity to contribute and provide insight into the need for improved integration of nutrition education in the new syllabuses being created. Nutrition is a complex, interconnected subject that affects all of us on a daily basis. A strong foundation both in understanding nutrition concepts and being equipped with appropriate skills can mean the difference between a potentially long healthy and active life or one that has an increased risk of malnutrition, including obesity, and premature morbidity or mortality from nutrition-related chronic diseases such as heart disease and type 2 diabetes.

Our organisation - PRCPAN

PRCPAN investigates nutrition and physical activity for population health. This includes education and health promotion strategies for chronic disease prevention, treatment and overall health and wellbeing.[1] The Centre offers interdisciplinary expertise from education and public health researchers, biochemists, exercise physiologists, food and nutrition scientists, Accredited Practicing Dietitians (APDs) and behavioural scientists to address the chronic disease burden and improve the quality of life of Australians.[1]
PRCPAN has generated evidence of the positive effects of integrating nutrition education throughout the Primary and Secondary curriculum. This evidence has led to a focus on cross-curriculum nutrition education, evidence-based professional development for teachers and nutrition education resources that lead to high quality nutrition education.

Our recommendations for this Inquiry

1. As new syllabuses are created we suggest that consideration be given to their capacity for incorporating key aspects of nutrition knowledge and/or skills
2. Consider establishing an overarching nutrition education message, similar to that of a cross curriculum priority, to facilitate opportunities for cross curriculum discussion of this complex topic and reinforce the importance of nutrition as it relates to health and wellbeing.

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We have taken the opportunity to highlight how these new syllabuses can potentially add to the discussion and improve student understanding of important nutrition concepts in order to provide them with beneficial life skills.

The following sections provide the background and evidence to support our recommendations.

Background

The Alice Springs (Mparntwe) Education Declaration states that "all young Australians become confident and creative individuals, successful lifelong learners, and active and informed members of the community".[2[p6]] The declaration also reinforces the need for all students to develop skills that prepare them for their future lives as healthy, active members of their communities.[2]

However, we are currently faced with a situation where present school leavers' have been found lacking in adequate skills and knowledge to implement food and eating practices associated with positive health outcomes.[3] Today's students are also faced with significant misinformation from a range of sources, including social media and food advertising that potentially fills these skill and knowledge gaps and creates negative behaviours.[3] The World Health Organization in The Thirteenth General Programme of Work[4] and the Lancet commission on adolescent health and wellbeing[5] identified adolescence and childhood as critical life stages for learning about nutrition, with a triple dividend returned for efforts undertaken in these age groups.[4,5] These leading health organisations identify the value of adequate nutrition and education to youth and adolescents, including their role as the next generation of parents, and recognise that it is critical that they are offered opportunities for nutrition knowledge and skill development.[4, 5]

Poor nutrition increases the risk for poor school performance and adverse health outcomes. For example in the 2015 Australian Burden of Disease Study, four potentially modifiable nutrition-related risks, i.e. poor dietary intake, overweight and obesity, diabetes risk factors and high blood pressure, were in the top five risk factors contributing to disease burden.[6] Numerous nutrition interventions have highlighted the school setting as a valuable setting for nutrition education[7]; yet there is often limited sustainability of such programs due to the complex nature of school timetables, curriculum requirements and the additional burden these programs place on time, resources and teachers. The school setting offers the last opportunity for population-wide access to quality nutrition education that includes knowledge and practical skills development that would support students to understand apply the Australian Dietary Guidelines.

We therefore advocate that greater emphasis within these *new syllabuses* needs to be given to how nutrition knowledge and skills are taught cross the primary and secondary school years. We also identify that improvements are needed to ensure students receive these essential life skills within a possible integrative curriculum approach offering a potentially successful and sustainable approach to nutrition education for future generations.

The NSW Curriculum Report released in April 2020 highlights the need to reflect on the core content of the curriculum within each learning area to achieve deep learning including practical skills and knowledge application.[8] It is suggested that this integrative approach would further this goal and student understanding of the interconnected nature of nutrition concepts.

An integrated approach to nutrition education is suggested as a possible sustainable, cost effective and valuable solution to address curriculum crowding and the need for additional wellbeing programs or extra-curricular topics[8] that address health concerns connected with nutrition outcomes.

Cross-curriculum approaches to nutrition education and the use of enhanced curricula or integrative approaches in delivering nutrition education has previously shown promise.[9] A systematic review by Dudley et al highlighted that among the most successful approaches to delivering nutrition education in primary school aged children includes integrative cross-curriculum approaches.[9] It is acknowledged that teachers within a variety of learning areas are already delivering education on aspects of the food systems, nutrition and life skills. Yet limited connection is seen by the student learner between these learning areas to reinforce their importance. Students can therefore learn nutritional concepts in PDHPE, agriculture and sustainable gardening practices in Technology, along with some recipe and cookery skills, and aspects of digestion in Science. It is suggested that these topics while of individual importance within these learning areas; are also connected in the way they are applied in life. Integrating nutrition education in a cross-curriculum manner reinforces its importance, establishes opportunity for deep learning, connects content across key learning areas with opportunity to enhance student nutrition education and improve school leaver nutrition awareness and knowledge.[9]

PRCPAN generated evidence

Specific examples of PRCPANs research studies that apply a cross-curriculum approach to nutrition education in schools:

- Our position paper outlined the need for and importance of, portion size estimation as a valuable life skill that aids individuals in implementing good eating practices and improved understanding of national dietary serve recommendations.[10]
- Our team surveyed over 100 primary teachers regarding their current use of nutrition related examples when teaching mathematical concepts.[11] We found that teachers tend to use Smartboards and cubes to teach volume and capacity, and that the majority use nutrition-related examples such as household measures, recipes and grocery shopping. Teachers also expressed having positive beliefs and interest in using digital games for these concepts. Although mathematics is most commonly integrated with Science and Technology, teachers believe a digital game integrating nutrition and mathematics could be very useful. Research on the development and implementation of an educational resource to combine these subjects using technology is needed.[11]
- Our primary school nutrition education intervention, the CUPS study, was able to demonstrate how portion size estimation can be taught with an integrative approach incorporating mathematical concepts of volume and capacity.[12] The lesson package created for the CUPS study demonstrated an integrative curriculum approach with activities showing alignment with both the current NSW Mathematics and PDHPE K-6 syllabuses and the Australian Guide to Healthy Eating.[12,13] This Australian study is a NSW example that builds on evidence collated in other countries highlighting the potential benefits and results of integrative curriculum approaches to nutrition education.[14, 15]

We conclude this submission with an anecdote from signatory Tammie Jakstas:

"As a secondary teacher some years ago, I felt the need, and saw the value of furthering my understanding, and education of nutrition to better understand its complexities. This additional education allowed me to deliver more creative and meaningful lessons and learning experiences to the students in my care. It highlighted on a personal level the value of being armed with the right nutrition information and skills as a teacher to confidently share this information to my students and enable them to potentially make better informed choices."

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Thank you for considering our recommendations.
Yours sincerely,

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