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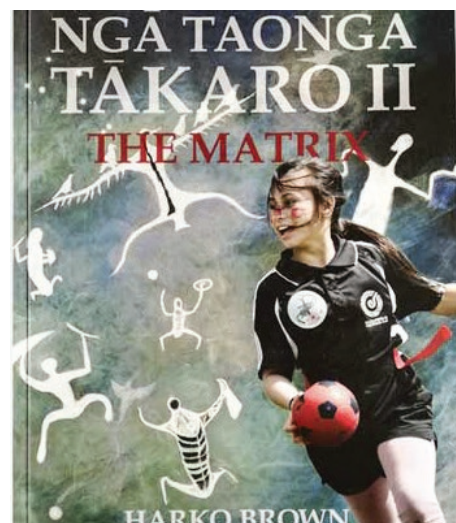


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Tēnā koutou katoa,

Welcome to our second journal of 2019.

Following on from the recent Annual PENZ conference, we highlight and reflect on some of the key moments and messages that came out of this important event in the PENZ calendar. A significant part of conference always includes the PENZ Awards Ceremony and here we honour colleagues for their skills, dedication and valuable contributions.



We begin this edition with our feature article: *Emotions, PE Leadership in Schools and the Quest for Authenticity*. This research not only encourages some insightful discussion but could also signal a direction for Professional Development, especially for those aspiring to be, or currently in leadership roles within a school.

President, Celia Fleck reports back to members on the encouraging direction of PENZ and CEO Richard van der Jagt gives a detailed account of PENZ achievements, developments and the opportunities received upon receiving additional funding from the Government. Richard outlines some of the proposed changes occurring in Education and PENZ subject advisor, Heather Lindsay updates members on some of the progress made on the Review of Achievement Standards.

Under our resources section, Dr Dennis Slade provides some clear advice and application guidance on *Enabling constraints for promoting flexible game understanding and shape*. We also introduce a new contributor to this space with Anton Sunde sharing his findings on the impact and effectiveness of specific training methods on male water polo players.

The PENZ team hope you enjoy this journal and wish you all the best at this busy time of the year as you navigate your way through final assessments and approaching examinations.

Ngā mihi nui

Maree Cotter



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Emotions, Physical Education Leadership in Schools, and the Quest for Authenticity

Heather Lindsay, Veronica M. O'Toole, Ian Culpan University of Canterbury

ABSTRACT

Effective leadership starts with a desire to make a difference, and equally requires the completion of a variety of duties that in turn elicit a range of emotions. This article reports on a research study that investigated key emotions experienced and reported by four Physical Education leaders. Leadership within secondary schools occurs mostly through carrying out the Head of Department or Head of Faculty role, both of which will normally involve overseeing the implementation of Physical Education, Health Education, and in many cases, Outdoor Education. Guided by pre-planned questions, the study involved conducting semi-structured interviews with four Physical Education Heads of Department. The data collected were analysed and interpreted using qualitative thematic data analysis. Two distinct themes revealed contrasting emotional experiences that were consistently reported by all four leaders. The results indicated that leaders experienced negative emotions elicited by professional tasks, but that they also experienced positive emotions when performing tasks that involved staff care. Leaders indicated how their preparation for, and implementation of activities fostering staff care, were important contributors to their job satisfaction. Through executing such deeds, the leaders showed their commitment to maintaining positive socio-professional relationships, and also reported behaviours consistent with high levels of Emotional Intelligence in conjunction with being motivated to develop staff both professionally and personally. The study found that leaders 'live' the curriculum as they believed that this was important in creating personal authenticity.

Key words

Emotions, Physical Education, Physical Education Leadership, Ethic of Care, Humanism

FOREWORD

When visiting preservice teachers at a local high school, I (Heather) witnessed the staff briefing and raffle that was held on Friday mornings. When formalities concluded, two teachers ran the weekly staff raffle where winners chose from a selection of prizes. Those in charge directed a light hearted event which culminated with a 'Booby prize'¹ for

a final 'lucky' staff member. Prior to the presentation, all staff enjoyed the story embellished by dramatic antics and hyperbole. What has stayed with me is the image of the staff coming together at that moment to share a humorous ritual, and the effect it had on their demeanour as they left the staffroom to go out to teach. The teachers' positive mood and the jovial atmosphere, gave me reason to ponder what part emotions play and how important they are in the life of the teacher.

PURPOSE AND INTRODUCTION

This article is an abridged report on a larger masters research study (Lindsay, 2018) that aimed to identify the influence of emotions in school Physical Education (P.E.) leadership, where key emotions experienced and reported by four P.E. leaders were investigated. The research set out to discover ways in which school P.E. leaders embrace the concepts of Emotional Intelligence (E.I.) (Goleman, 1995), and an Ethic of Care (Noddings, 2013) (Manākitanga).

Effective leadership starts with a desire to make a difference, and requires the completion of duties that elicit a range of emotions. P.E. Leadership within secondary schools occurs mostly through carrying out the Head of Department or Head of Faculty role, both of which involve overseeing the implementation of P.E., Health Education, and in many cases, Outdoor Education programmes.

It would seem highly plausible, that due to the nature of this leadership role, requiring interpersonal interactions, and considering the types of tasks the leaders carry out, that there would be many emotion-evoking situations. This assumption led to the major research question: What is the influence of emotions in secondary school P.E. leadership, in particular, what are the key emotions that are experienced and reported by P.E. leaders?

BACKGROUNDING EMOTIONS AND LEADERSHIP

Emotions

Emotions have been described as "a structuring principle of ongoing social relations in nearly every setting and institution in our society" (Marecek, 1995, p. 109). Oatley (2004) suggests that the term 'emotion' is an intense feeling that is short-term

¹ A prize given as a joke to the last-place finisher usually in a race or competition

and is directed at a source. It has a connection with 'affect', which is what Gross (2015) proposes is an "umbrella term for psychological states that involve valuation of circumstances defined as quick good-for-me/bad-for-me discrimination" (p.2). Most commonly, emotions are considered to be affective experiences such as surprise, amusement, sadness or anger (Oatley, 2004). Lazarus's (1991a) theory proposes that emotions are "cognitive-motivational-relational" (p. 13), and occur as a result of our thoughts or judgments about how a situation in relation to our goals or motives. In this way, our judgements or appraisals of a situation are the main contributors to the emotions we are experiencing. Lazarus further states that "appraisals are not merely verbal tricks or labels but reactions to fundamental relational meanings that have adaptive significance in our lives" (p. 826). He proposes that emotions occur when a person perceives a situation will either positively or negatively impact their self-perception and or the achievement of their personal goals. Oatley (2004) similarly expresses that "emotions are most typically caused by evaluations- psychologists also call them appraisals- of events in relation to what is important to us: our goals, our concerns, our aspirations" (p.3). Emotions are therefore linked to what we know as well as what we expect might be about to happen, and have been attributed as historically important in allowing us to be in a state of readiness to act (Oatley, 2004). As well as immediate reactions, emotions may last for extended periods of time that are often then described as 'moods' (Oatley & Jenkins, 1996).

Gross (2015) supports the notion of the functionality of emotions and describes them as being "either helpful or harmful, depending on the context" (p.4). For example, to be useful, emotions must guide sensory processing, accurately interpreting and bringing to action behaviours and responses that support an individual's choice course of action. Emotions can be harmful when they inhibit the ability to behave or respond appropriately in certain situations, often related to the intensity and duration of the emotions that one experiences. Where the outcome of emotional expressions is harmful for the individual, Gross (2015) suggests that it is important to consider the process of emotion regulation, which refers to the processes that are used to modify an emotional response in order to manage emotions. Teachers use emotion regulation strategies on a daily basis, such as masking their emotions, or changing their evaluations of a student's work or behaviour in order to reduce feelings of anger in order to feel more calm (Sutton, 2004). Re-evaluating or reappraising a situation is the most effective way to regulate emotions and better for one's health also (Gross, 2015). Emotion regulation is also regarded as one of the components of emotional intelligence (EI), defined by Mayer, Salovey and Caruso (2016) as an "ability model" (p. 290) whereby we are able to reason about and use emotion to optimise our thinking and problem solving.

The emotional theories underpinning this research draw on Lazarus' (1991b) Cognitive-Motivational -Relational theory, Gross' (1998) Emotion Regulation theory, Mayer, Salovey and Caruso's (2016) Emotional Intelligence theory, and Noddings' (1995) Ethic of Care (for the full explanation of these theories, refer to (Lindsay, 2018). These theories resonate with humanist philosophy, and links can be made between these emotional theories and Health and Physical Education in the *New Zealand Curriculum (HPE)* (Ministry of Education, 1999 (MOE, 1999) and the *New Zealand Curriculum* (MOE, 2007).

Leadership

While there is a plethora of literature on Leadership frameworks, styles and approaches (Hallinger & Heck, 2010; Struyve & Kelchtermans, 2013; Tracy, 2014; Zeidner, Matthews, & Roberts, 2009), one of the most commonly referenced leadership frameworks has been developed by French and Raven (1959). This framework explains the effects of leadership types on social power relations. The focus of the framework analyses how individuals use sources of power to lead others. French and Raven identify six types of leadership power, these are:

1. Legitimate power- power through the position one holds
2. Expert power- power developed through personal expertise
3. Informational power- power demonstrated by the strength of the argument
4. Reward power- power developed through an ability to control rewards to others
5. Coercive power- power developed through one's ability to punish others
6. Referent power- power based on respect (French & Raven, 1959)

While caution is given to the generalised use of this framework (Cassidy, Jones, & Potrac, 2004), it is argued that the framework has value in understanding the multi-layered and multi-faceted construction of leadership power relations and the emotions they generate. Other research and writings on leadership have tended to paint only a positive picture of leadership (Ehrich, Ehrich, & Knight, 2012). Ehrich et al (2012) describe how contemporary leadership styles embrace humanistic and humane procedures, where the act of leading involves positive and respectful approaches requiring the formation of trusting relationships between leaders and followers. However, due to competing pressures and accountability that leaders face, it is difficult for leaders to "live out such humanistic leadership ideals and practices" (Ehrich et al., 2012, p. 34).

METHODOLOGY

A socio-constructivist framework (Burr, 1995) informed this interpretive study (Mutch, 2013) that involved conducting 45-60 minute semi-structured interviews with four P.E. heads of departments. The interviews were guided by the following five questions:

1. What personal emotions do you experience when you perform your leadership role?
2. What leadership tasks generate these emotions?
3. What do you perceive are the emotions that you express that generate the most positive responses from your staff?
4. What do you perceive are the emotions that you express that generate the least positive responses from staff?
5. What emotions do you believe should be role modelled in P.E. Leadership? Why do you think this?

The data collected were analysed and interpreted using qualitative thematic data analysis techniques (Bogdan & Biklen, 2007). Ethical approval was obtained through the University of Canterbury's Educational Research Human Ethics committee. This approval required attention to appropriate consents, confidentiality, adherence to Treaty of Waitangi principles, and the rights of the participants. All names used in this paper are code-names.

DATA ANALYSIS

The first set of data revealed that the P.E. Leaders reported more negative (unpleasant) emotions than positive emotions in general. Negative emotions totalled 12 and included *frustration, stress, anxiety and overwhelmed*, and positive emotions totalled nine and included *pride, happy, humbled and compassion*. In this paper we are focusing on the contexts of the P.E. leaders' emotions and their perceptions on how they manage or regulate these.

Data analysis followed the recommended procedures of Bogdan and Biklen (2007). Specifically, responses to the interview questions were transcribed from recordings, codes were developed from the participants' statements, and similar codes were grouped and any uniquely coded responses were maintained separately.

Coding patterns were established and categories were created which were then collapsed into 2 themes:

1. Performing Professional Tasks
2. Staff Care

Performing professional tasks were indicative of administrative responsibilities such as organising and running meetings, managing equipment and facilities and staffing issues. All of these have been categorised as 'Internal department responsibilities'. Other management related tasks, including leaders' perceptions related to

self-management of their emotions while performing professional tasks, were similarly coded. The second theme of Staff Care was characterised by professional interactions with staff, opportunities to share leadership responsibilities, fostering positive relationships with colleagues, receiving collegial support, role modelling leading in ways that support others to experience personal growth, and achieving a sense of authenticity by ensuring the department's modus operandi aligned with the humanist philosophy of the curriculum. These two themes gave rise to four findings.

FINDINGS AND DISCUSSION

The first finding was that all four leaders expressed that many of the administrative tasks generated negative emotions. Conversely, the generation of these leaders' positive emotions was associated with developing socio-professional relationships through supporting their staff. Leaders reported experiencing more positive emotions and joy in their job when facilitating an Ethic of Care (Noddings, 1995) that promoted personal and professional growth of their staff. In contrast, they referred to the frustration of not always being in control of the factors affecting the running of their departments, and how this often led to them feeling overwhelmed and emotionally exhausted. One leader reported that,

The problem with schools or education is that every minute seems to be different and everything you're trying to do seems to be different. There's always going to be a build-up of helplessness and frustration as you're trying to be and do everything, and that is sometimes when you're potentially less able to meet the vision that you want because you're restricted by resources, time and processes (Mike).

The second finding was all four leaders' explanations of how in their leadership role they were very conscious of regulating their emotions (Gross, 2015; Hargreaves, 1998) to ensure that their department had a culture that was typified by a positive emotional climate. For instance, one leader described offering a "front" that appears to be positive, allowing him to perform his role according to the expected normal behaviour of teacher leaders. His descriptions suggested a method of masking his negative emotion by creating a positive or pleasant facial expression, illustrating the internal conflict that plays out. He believed, "in the job... you want to appear to be calm, cool and collected even though at times you can be angry in terms of things that are impacting on either your teaching or the things that you want to do" (Erik).

Leaders talked about emotions in line with emotion theory (Lazarus, 1991a). They offered a context for, or description of, a certain emotional climate. All leaders described performing emotion regulation as a part of their leadership roles, indicating a belief that cognitive reframing (reappraisal) (Lazarus, 1991b) of their emotions was required ahead of

time to be in the correct state to do caring tasks similar to Sutton's (2004) findings with teachers. For example, one leader stated that, "I have learnt the importance of offering a front that appears to be positive, and I say, appears to be; sometimes I am and sometimes I'm not" (Erik). Another leader also provided an example of emotion regulation when he expressed that, "on the inside you may not be in the frame of mind that you want to be in, but on the outside, when you deal with people, they are unaware of that" (Mike).

When questioned about what they felt they were able to control in their jobs such as the types of emotions that should be role-modelled in P.E. leadership, links were made with how expressing pleasant emotions can promote a positive culture within their departments. One leader described the emotional environment in the department stating, "I love it, how we all strive to do our best, you know, no one is more important than anyone else. Like if one of our staff members comes in after a frustrating class, there'll be an instant *kōrero* and the whole department will be giving them advice and tips and ideas" (Mia).

A third finding, was all leaders applied an Ethic of Care (Noddings, 1995) to both staff and students. This Ethic of Care was characterised by shared leadership responsibilities, and implemented through a referential leadership style (French and Raven, 1959). It provided staff with opportunities for professional growth by empowering them to take on greater professional responsibilities. One leader described how in their department, "everyone's a part of everything we do, whether it's decision making or whether it's sharing the excitement of a lesson ... and that breeds a culture of sharing" (Mike). There was high need expressed by the leaders to show care to make their job enjoyable. Problematically, it was reported there was not much time afforded for moving between performing the professional role, and being in the position to offer care. Leaders described how staff interactions elicited pleasant emotions that reinforced the experience itself, which in turn led to continued engagement in similar activities and roles. These acts of caring are consistent with what Noddings (2013) describes as relationships of care and trust, and the leaders all described these in a very positive manner. One leader expressed this by saying,

I love organising things. I think that it's a real teaching personality trait but I'm happy in here ... sorting stuff out, organising it so that their (my department staff) jobs are easier. I work really hard in that way to make sure that things are there for them. In turn everyone embraces a team approach, a group hug mentality where everyone wants to support everyone else (Mia).

The leaders' descriptions of their leadership styles indicated that they value the humanity they brought to the job, regardless of how this was expressed with their staff. The leaders appeared to be aware of power relationships and

indicated through sharing leadership responsibilities, their preference for Referential Leadership (French and Raven, 1959), or power that is based on respect (Haber-Curran, Allen, & Shankman, 2015), indicating a humanistic leadership style. As part of this humanistic approach, the leaders also demonstrated high levels of Emotional Intelligence (EI) in maintaining positive socio-professional relationships. They made links between the perspectives they held as physical educators, such as the importance of contributing to the humanistic development of all individuals, and the intentions of the HPE Curriculum (MOE, 1999). One leader described how he aligned himself with the curriculum.

As physical educators we have such diverse areas to cover with our curriculum but it gives us such a great point of reference for how we want to be. Whether it be a young teacher or a new teacher. One of the first emotions that they (new teachers) probably feel is, is that lack of confidence and that high amount of fear. If I can do anything that helps here I should exude confidence and trust in them to help them become their best (Erik).

A second leader explained that she will always support the endeavours of her staff stating that they should strive "to continue to develop their own strengths, to live the curriculum" (Nicky). These links led to the fourth and final finding.

The final finding was that all participants indicated a strong desire that leadership of their staff and the staff's leadership of their students, needed to be authentic. Authenticity being determined by the department's *modus operandi* being aligned with the humanistic philosophy of the HPE Curriculum (MOE, 1999). One leader gave an example, stating "we've got to work together collegially as a staff, and our kids have got to see us as good role models about how we work together to solve problems" (Erik).

The Curriculum provided a reference point for authenticity in P.E. leadership, and was seen as more than simply a document of educational policy for student learning. Leaders described how they 'live' the curriculum, contributing to a sense that everything required of them in the job was worthwhile. It seemed that the HPE curriculum (Ministry of Education, 1999) held a special place in the hearts of the leaders in this study, as it shaped their thinking and behaviours.

MOVING ON

This study could have implications for P.E. leadership, in particular, the key finding that highlighted how participants in this study experienced far more negative emotions than positive emotions during the administrative tasks of their role. An implication is that the hierarchy in secondary schools may need to consider the impact of their requests for administrative procedures to be upheld, and monitor this so that any administrative trivia is eliminated. A second implication stems from the leaders in this study being

arguably successful HOD's in P.E., and their desire to achieve authenticity in the alignment between their leadership style, with the curriculum philosophy (humanism) staff delivery, and student learning. Professional Development could therefore be encouraged for aspiring P.E. HOD's around leadership styles that are humanistic in nature and develop an Ethic of Care that aligns with the philosophy of the curriculum.

STRENGTHS AND LIMITATIONS

The strength of this study was the research design which enabled the researcher to provide more exploratory type questions in order to gain a rich tapestry of data associated with the participants' responses. The nature of the semi-structured interviews provided greater opportunities for participants to self-disclose their emotional behaviour. Arguably the richness of such data may not have been obtained by surveys or written responses to questionnaires.

A second strength of the research was that the interviews appeared to be cathartic for the leaders as they were given the opportunity to recognise and share feelings that would normally (O'Toole, 2018) participants to talk about and describe their personal experiences, and as such was a strength of the research design.

Perhaps a limitation of this study centres on the socio-constructionist framework where the problems of administration were highlighted more so than the positive nature of policy assisting operations. Further to this, the self-reported data such as the emotions described by the participants could also be a limitation of this study (O'Toole, 2018). It may be that the specific emotion words used by the participants to describe feelings they had experienced, had subtle definitional differences that might mean the coding incidence of some data was not representative of some of the reported emotions. This coupled with the fact that this research study was relatively small in size, meant the generalisability of the results is limited.

REFERENCES

- Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theory and practice*.
- Burr, V. (1995). *An introduction to social constructionism*. New York/London;: Routledge.
- Ehrich, L. C., Ehrich, J., & Knight, J. (2012). Narcissistic and service-oriented leadership : contrasting perspectives. *Leading and Managing*, 18(2), 34-45.
- French, J. R. P., Jr., & Raven, B. (1959). 'The bases of social power', in D.Cartwright (ed.). *In Studies in Social Power*. Ann Arbor, MI: University of Michigan Press.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Gross, J. J. (1998). The emerging field of emotion regulation: an integrative review. *Review of General Psychology*, 2(3), 271.
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1-26.
- Haber-Curran, P., Allen, S. J., & Shankman, M. L. (2015). Valuing human significance: Connecting leadership development to personal competence, social competence, and caring. *New directions for student leadership*, 2015(145), 59-70.
- Hallinger, P., & Heck, R. H. (2010). Leadership for Learning: Does Collaborative Leadership Make a Difference in School Improvement? *Educational Management Administration & Leadership*, 38(6), 654-678. <https://doi.org/10.1177/1741143210379060>
- Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and teacher education*, 14(8), 835-854.
- Lazarus, R. S. (1991a). *Emotion and Adaptation*. Cary, UNITED STATES: Oxford University Press.
- Lazarus, R. S. (1991b). Progress on a Cognitive-Motivational-Relational Theory of Emotion. *American Psychologist*, 46(8), 819-834. <https://doi.org/10.1037/0003-066X.46.8.819>
- Lindsay, H. (2018). *Going through the emotions: an investigation into key emotional experiences of physical education leaders : a thesis submitted in partial fulfilment of the requirements for the degree of Master of Education, University of Canterbury, University of Canterbury, Christchurch, New Zealand* U6 - ctx_ver=Z39.88-2004&ctx_enc=info%3Aofi%2Fenc%3AUTF-8&rft_id=info%3Aid%2Fsummon.serialsolutions.com&rft_val_fmt=info%3Aofi%2Ffmt%3Akev%3Amtx%3Adissertation&rft.genre=dissertation&rft.title=Going+through+the+emotions&rft.DBID=FX&rft.au=Lindsay%2C+Heather&rft.date=2018&rft.pub=University+of+Canterbury&rft.externalDBID=n%2Fa&rft.externalDocID=2700446¶mdict=en-US U7 - Dissertation). Retrieved from <http://canterbury.summon.serialsolutions.com/2.0.0/link/0/>



CEO's Report

Richard van der Jagt

As we head into the second half of the year our remaining projects are really gaining momentum and it looks like it will be race to the finish. As you will be aware, in April 2018 PENZ and a number of other subject associations were the recipient of a small Network of Expertise (NoE) grant awarded by the Ministry of Education. This grant has contributed toward the development of three important projects.

The first project was the New Zealand Primary Teachers Conference which attracted just over 360 delegates from as far away as Australia, Chatham Islands and East Cape in the North Island. One of the reasons this conference was a huge success was the foundation the conference was built on; it was based on collaboration and sharing of ideas, knowledge and experiences between the ten different subject associations who contributed to it. This collaboration with other subject areas is essential if we are going to really engage with our primary and intermediate colleagues and grow the awareness of PENZ as an organisation and the learning area we represent. The Network of Expertise grant underpinned the development of infrastructure such as websites and automated enrolment processes for the conference, infrastructure we can utilise again as we slowly begin planning for the next conference in 2020.

The second project we gained funding for was the development of Health and Physical Education Day (HPE Day) We hope that HPE Day becomes an annual day on the calendar to raise awareness of, and advocate for the value of HPE in schools. The day aims to highlight the importance of this learning area and the impact on the learning potential and wellbeing of all children, the benefit to all schools and the valuable contribution the HPE learning area makes to the wider community. We have developed a three-tiered theme "Good for Children, Good for Schools and Good for Communities" which is celebrated over a three-year cycle.

This year is our inaugural year and we hoped to have 10,000 students, parents and community organisations registered for activities across the country. At the time this article went to press we had over 14,000 people registered with a week left to run! By any measure this has already been a success and this success can be attributed to the support it has received

from teachers, parents, principals, schools and communities around the country. Our hope is that this event will continue to grow so that every school in the country will, in some way, celebrate and value the importance of HPE as a learning area, and the importance the learnings can have to our daily lives.

The last project to be undertaken is around micro credentials. For people not familiar with micro credentials, they are very short work-based specialist courses which PENZ is developing in relation to the HPE learning area. These special interest courses are all NZQA accredited and will be available through the Learning Hub as they are developed throughout 2019 and 2020.

These projects have been selected and developed because they are central to the tenants of our strategic plan which require we improve the awareness, knowledge and understanding of physical education, develop collegial relationships with other educational organisations, and support the professional development of teachers of physical education. There are roughly 26,000 teachers who deliver aspects of the HPE learning area nationally across the primary, intermediate and secondary sectors.

In addition to these three complex projects, the past 12 months have seen an unprecedented number of new projects completed in addition to our normal activities, these include:

- The development of a Learning Management System (LMS) called the Learning Hub
- The PENZ Store where schools, departments and individuals can purchase HPE resources along with a range of relevant sporting goods.
- Supporting the Teachers' Games in Mt Maunganui
- Revising and updating the Branch Manual and
- Inspired Leadership Conference in Christchurch

Finally, in early January we were awarded a contested contract by ACC and Sport New Zealand to deliver a new resource called *Movewell*. This resource is aimed at primary and intermediate level and is almost halfway through development. Once completed it will be available free to New Zealand Primary and Intermediate schools and it will add to a growing number of new resources developed by PENZ which will be available to teachers in the new year.

EDUCATIONAL REVIEWS

Change is a constant in the education sector and never more so than at the moment. Most recently the Ministry of Education has established a reference group to provide advice and to support the ministry as they develop their operating model and framework for the Review of Achievement Standards (RAS). PENZ has a representative on this reference group in our Academic Advisor, Heather Lindsay. Heather is working with our own advisory group made up of representatives from around country to gather feedback for the ministries reference group.

Feeding into the RAS review is another piece of work, this involves clarifying the NZC Learning Area statements. (Essence Statements) This piece of work is being led by Dr Susannah Stevens, our previous Academic Advisor and now our newest board member. The ministry believes teachers need greater clarity about the competencies, skills and knowledge that students need to develop across years 1-13. In particular, the RAS needs a clear direction about the significant learning from within the NZC particularly those which need to be assessed via NCEA. Through the RAS the clarified Learning Area essence statements will be further unpacked and used to describe what progression across NCEA levels looks like in specific subjects.

CHALLENGES AND OPPORTUNITIES

Over the next 4-6 months there will be many challenges ahead but there are also many opportunities. The announcement of the Wellbeing Budget and the \$47M investment into the Healthy Active Learning (HAL) initiative could provide significant opportunities for PENZ, particularly in the area of resource development. To be successful we will need to continue collaborating widely across the whole sector, raising awareness, knowledge and understanding of physical education and advocating strongly to ensure the integrity of Physical Education in our primary, secondary and tertiary spaces.

These challenges and opportunities are continually assessed by our board who work tirelessly to guide the organisation. At this year's national conference, we saw Nichola McCall step down from the board. Nichola will be missed by everyone. She made a significant contribution to PENZ in establishing our Maori Advisory Group and Maori Awards and we are all sad to see her depart. Kane Wilson also departed the board as an elected member but has agreed to remain for a short time as a seconded member.

We welcome two new board members both of whom are familiar to members and hardly need introduction. Harko Brown hails from the Bay of Islands and brings a wealth of knowledge and understanding across every aspect of the PENZ kaupapa as a teacher, author and innovator in the sector. Dr Susannah Stevens is now working at the University of Canterbury's Child Well-being Research Institute. Like Harko, Susie will also add a significant depth of understanding and knowledge to the PENZ board having worked in the organisation alongside its staff, contractors and stakeholders. We look forward to working closely with Harko and Susie and the entire PENZ board over the coming year.

interdisciplinary approach involving researchers, young scholars' teachers and students.

Ngā mihi

Richard van der Jagt

Chief Executive Officer



President's Report

Celia Fleck

Kia ora e te whānau,

What an incredible community of Health, Outdoor and Physical Educators we have here in Aotearoa. It was a privilege to once again work in partnership with Education Outdoors New Zealand (EONZ) and New Zealand Health Educators Association (NZHEA) to deliver this year's National Conference in Wellington, hosted at Queen Margaret College. From the keynotes to all the workshop presentations, we were greatly inspired by teachers sharing and speaking from the heart. Dr Professor Ming-Kai Chin reminded us that fun is an important element in forming physical activity patterns for life, and that if we perhaps change the discourse from 'because it is good for you' to 'because it is fun' we might have found a far greater motivator for our young people. David Shanks, Chief Sensor, challenged us to "think about empowerment not restriction" in a world where technology and the internet is so quickly evolving. And our fabulous panel of kaiako – Kata O'Donnell, Tamaki College, Caroline Reddish, Trident High School, Adam Wilson, Orewa College – reminded us what it means to be the teacher our learners need us to be; that we need to first and foremost focus on the relationship with each individual learner, and we need to create places of connection for our learners.

I truly believe that together we are stronger. That coming together in this way provides the opportunity to connect, collaborate, learn, create, and share with each other; to have fun and show manaakitanga and aroha for our HPE whānau.

As mentioned by Adam Wilson during the final words of the conference:

He aha te mea nui o te ao. He tāngata, he tāngata, he tāngata

What is the most important thing in the world? It is people, it is people, it is people.

During conference PENZ held their Annual General meeting and the following includes comments from my Presidents Annual Report.

I am fortunate to have the support of an amazing group of individuals who volunteer to serve on the board, and I cannot thank them enough for their contributions to the governance of PENZ, for the diversity of thought that they bring, and to the unity of purpose in wanting the very best for our members and the Physical Education community in Aotearoa – tēnā rawa atu koutou. I am also very grateful to Margot Bowes, your previous President, for her ongoing mentoring and support, and indeed to many in the Physical Education community who have lent me their ear and their wisdom, over this past year.

At the AGM we thanked Kane Wilson and Nichola McCall for their time on the board.

Kane was elected to the Board at the 2016 AGM, following a short time filling the vacancy as the Māori representative. In November 2016 Kane stepped into the role of Acting CEO until the end of January 2017, holding the day to day management of PENZ together during a very challenging time for the organization. Kane worked incredibly hard during this time to ensure the organization was meeting its contractual obligations with our key partners and paying creditors, while also meeting with the bank and lawyers to ensure the ongoing viability of PENZ. Kane's knowledge of both the education and sport sector has enabled him to advocate for Physical Education, and identify powerful partnerships. He has brought a wealth of understanding around strategic planning to the board table, and his understanding and experience in both governance and organizational operations adds value to discussions and decision making. I particularly thank him for his role on the sub-committee for CEO Performance management.

Nichola McCall was elected as your Māori representative at the 2016 AGM. As a caring and compassionate wahine toa, Nichola has supported the boards commitment to Te Tiriti o Waitangi. She has led us in several sessions on cultural development, all of which have been confronting, moving, challenging and thought provoking for board members, and without exception have been times of personal and professional growth for us all. Nichola brings her expertise in culturally sustaining pedagogy, and commitment to decolonization, to discussion and decision making, by continually challenging the organisations values,

actions and behaviours. Nichola has been instrumental in setting up the Māori Advisory Group, and providing a forum for kōrero and wananga. She worked closely with Dr Ihirangi Heke last year in establishing the two new Māori awards – the Tane Pepeke Award that we award for the first time this year, and the Tama te Uira me Hine te Uira Award, which last year was awarded to Shea Coxson, Maoribank School. Tēnā rawa atu koe, Nichola thank you very much for your contributions to Te Ao Kori Aotearoa.

We then warmly welcomed and appointed to the board two new members, Dr Susannah Stevens and Harko Brown (Māori Representative).

I would like to thank all board members for their support and their expertise over the last year. They make a huge commitment on behalf of the members to govern and sustain PENZ. Thank you also to our Patron Trevor Garrett. Trevor continues to be a highly involved and multi-tasking Patron attending Board Meetings, assisting with finance and CEO management, and supporting me in my first year as President.

PENZ is in very good heart – due to the good and passionate people that make up its membership, branches, staff and board – and maintains a strong financial position.

This past year has been one of seeking clarity of purpose for the organization, and a key piece of work that has come out of this is our much more coherent Strategic Plan document. This is a valuable tool in allowing us to measure the success of the organization, and be strategic about how we prioritise our resources. Changes in staff, and changes in the educational landscape, as well as changes to the wider socio-economic climate continue to challenge us as an organization. However, the Physical Education community can be reassured that we are well served by our PENZ staff and our members, and have a strong and competent voice at the discussion table where many of these challenges are being worked through. Most topical right now is the Review of Achievement Standards (RAS) and I would like to thank Heather Lindsay (subject advisor) for representing PENZ so competently, and for her leadership in forming a reference group to support this mahi.

PENZ continues to grow and strengthen its relationships with key partners such as Sport NZ, the Ministry of Education, Education Outdoors New Zealand (EONZ), the Australian Council of Health Physical Education and Recreation (ACHPER) and the New Zealand Health Education Association.

I would like to thank our PENZ staff for the enormous contributions they make to the organisation: Richard van der Jagt (CEO), Claire Waring (Office Manager), Heather Lindsay (Subject Advisor), Janna McLean (Subject advisor – maternity leave), and Maree Cotter (Journal Editor).

We were saddened to receive the resignation earlier this year of Dr Susannah Stevens as our Senior Subject Advisor. Susie

is a strong advocate for Physical Education, and is highly respected across the education and sport sectors, both in Aotearoa and internationally. Her strong relationships with key partners and with members, her energy and expertise that she has contributed to the organisation, has been instrumental in improving outcomes for our tamariki and rangatahi. Susie worked closely with Richard to negotiate several contracts over the past 18 months. Susie has lead the team of subject advisors from around the country, and even now continues to mentor Heather Lindsay in her role as Subject Advisor, and provide valuable support to Richard, Claire, and to the board. On behalf of all PENZ members and the wider Physical Education community in Aotearoa, I would like to thank Susie for her outstanding contribution and service, and wish her all the best in her role at the University of Canterbury Child Well-being Research Institute.

To the passionate and loyal members of PENZ, who connect, collaborate and contribute to the Physical Education community - I thank you. PENZ would not exist without you. I would like to acknowledge and thank those who volunteer their time and resources to the work being done by our three branches – Auckland PENZ, Hawkes Bay PENZ, and most recently Waikato PENZ. The support you provide to members in your regions is hugely appreciated and is something that other regions can aspire to. The PENZ Board is committed to ensuring that you receive the support that you need to continue to meet the needs of members in your regions.

We still have much mahi to do, but I believe that our governance and management strengths, combined with the commitment of strategic partners to our organisation, and our relationship with ACHPER, EONZ, NZHEA and our committed members, positions us well for the future. There are many strategic challenges ahead but there are also many exciting opportunities. The announcement of the Wellbeing Budget and the \$47M investment into the Healthy Active Learning initiative provides significant opportunities for PENZ. We must continue to advocate to ensure the integrity of Physical Education in our primary, secondary and tertiary spaces. We must continue to engage in the dialogue of the many facets of the Education Review. We must continue to strengthen our cultural capability *kia takotako ai te tū o tō whare* to enable our house to stand firm and tall.

Finally, congratulations to all the 2019 PENZ Award winners, it is wonderful to be able to acknowledge and celebrate your achievements and your contributions to the Physical Education community in Aotearoa.

Ngā mihi nui ki a koutou,

Celia Fleck
President



The Mihi Whakatau presented by Cathy Curtis from Queen Margaret College

Global Health and Movement Practises – PENZ Conference 2019

“Global Health and Movement Practises” was the theme of the 2019 PENZ national conference which took place at historic Queen Margaret College in Thorndon, Wellington from the 8th – 10th of July.

The 61st annual conference facilitated by PENZ, in partnership with EONZ and NZHEA, saw teachers, academics and health professionals come to Wellington for three days of high-profile keynote speakers and to participate in 71 workshops. It was a rare opportunity for teachers to connect with, and celebrate, their peers, and to discover new resources to be implemented in time for anticipated changes to the education system. As it turned out there was plenty of innovation on display, some new and emerging challenges for educators to tackle, and questions raised about how far the ministry’s proposed changes will go.

In her welcoming address to the 260 attendees, QMC principal, Jayne-Anne Young, expressed a fear that Physical Education teachers could end up a “dumping ground” for the promised push for “well-being and resilience” and highlighted the importance of remaining a part of the conversation. For PENZ president Celia Fleck, the role of a physical education teacher has always been uniquely relationship-focused, and the involvement in extra-curricular activities has invariably led to teachers getting to know their learners at a deeper level.

“I see it more as an opportunity, for us to really lead in how we support other teachers to being more aware and responsive to young people’s well-being”.

Attendees were spoilt for choice by an eclectic range of workshops covering everything from: drug & alcohol and sex education, decolonisation and the role of cultural narratives and practise as a way of enriching learning, the use of books to promote movement, a broad selection on course planning and assessment, and many practical, hands-on sessions around game-playing but to name a few.

A chance to feedback on the ministry’s proposed changes was offered in the NCEA review sessions. Over two, well-attended classes Nathan Owen Kate Curtis went through the change package and how it would impact senior secondary. Unnecessary barriers were to be addressed, following student feedback that standards and resources underpinning NCEA weren’t always inclusive of culture, genders and abilities. An example highlighting the need for this change was given of a student with a disability sitting a home economics standard who had to lift and put a tray into an oven and was denied achievement because they couldn’t complete the task. Addressing disparity in Māori education was another major, with more resources and support being offered across subjects including the conversion of some Mātauranga Māori unit standards into Achievement Standards,



Getting into the practical stuff with one of the workshops.

meaning a university pathway for subjects such as Māori performing arts.

The session wasn't without controversy, however. Responding to the worrying statistic that up to 40% of level two students don't have functioning numeracy and literacy, the ministry is proposing removing the literacy and numeracy requirement out of the standards package and replacing it with a new package of standards worth 20 credits. It was anticipated that the core competencies would still be developed across subjects, but assessment would take place in a new external assessment, to be sat by students when they felt ready (in years 7 to 11).

Perhaps perceived as a challenge to the breaking down of siloed teaching, that many teachers had been anticipating, similar concern was expressed by members of EONZ and the future of Outdoor Education's status once physical education standards drop from the current 7 – 9, to a proposed 4. Would this benefit, or restrict Outdoor Ed? An option could've been to move across other subjects. Using an example from chief censor David Shanks' keynote speech that started off Day Two, EONZ co-chair Phil Washbourn spoke of how teaching propaganda in the digital age could be addressed through statistics in maths, history and a range of other subjects, as could Outdoor Ed. But there was some fear that aspects of the current model, that privileged some subjects with achievement standards, could remain.

An Auckland based teacher, who attended the afternoon NCEA review session, was heartened however that, regarding the literacy and numeracy discussion at least, an assurance was given that there would be cross-curricular exemplars which is a level of commitment the sector hasn't had from NZQA before.

The two major keynote speakers of 2019 were the chief censor and, embedding the conference theme on Day One, was Prof. Dr. Ming-Kai Chin – the President and Founder at Global Community Health, with a presentation



Brain-breaks during Ming-Kai Chin's Keynote presentation on Day 1.

on global practices. Las Vegas based but constantly on the move, Dr. Ming-Kai Chin has sat in on over 600 physical education classes around the world and is of the belief that about 80% of students weren't enjoying their physical education. To address this, Dr. Chin used the colourful example of airline safety videos on flights, and most airline's clear assumption that frequent fliers seldom listen to the videos, which has forced the clips to become more and more creative, innovative and "fun" to attract eyes to their vital message.

Another popular session was the workshop on "Threshold Concepts for Curriculum Design", run by Kylie Thompson and Anne McKay and, offering practical examples of its application, were Heemi McDonald and Shea McEvoy, joint-deputy principals of North Hamilton's Rototuna Senior High School. McEvoy explained the concept using the popular film "The Matrix" and the key moment towards the end when lead character, Neo, finally understands what the Matrix is and, with that new understanding, starts to see everything in code. Threshold concepts are about clearly identifying the "transformative moment" a lesson should always be building towards, and that moment will forever change a student's thinking. Working back from that key point needs to be incorporated into unit and lesson planning. The workshop certainly challenged the decision making process of many teachers present and highlighted the tendency to create classes that "knowledge bank" rather than offer portals for students to step through into a new understanding of subjects. Applied now across Rototuna Senior High School with encouraging results, RSHS went on to win the inaugural Tane Pepeke award at the following afternoon's PENZ awards.

A similar theme ran through Rick Baldock's 'Playing with Purpose' workshop. Baldock, the current Australian Council for Health and Physical Education and recreation branch professional learning officer, in his affable style, reminded participants of the need for all their activity to

have an educative purpose, which is sometimes lost when dealing with health or sport. The specific educational purpose of this workshop was the development of fundamental movement skills which Baldock presented by adding a secession of constraints to a game played by attendees to emphasise specific skills.

The new push for “wellbeing” is unquestionably a reaction to the new challenges posed by the digital revolution we’re living through. In the keynote speech given by the NZ chief censor, David Shanks, a distressing stat was shared that “Porn Hub”, a single free pornography site, had received 33.5 billion visits in 2018, and was only one of 500,000 such sites in operation. In Jenny Robertson’s engaging Day Two workshop, “Careful Consideration of the educational purposes of learning about pornography as a wellbeing issue” a class discussion identified the disparity in student experience, which is near impossible to ascertain, as a challenge to confident class planning around effective pornography education. Another talking point was this rapidly expanding subject and the current law.

“Schools are required to deliver sexuality education, but parents have a right as a matter of law to withdraw their children from these classes”.

With sexuality now such a broad subject, children could legally be withdrawn from consent classes, relationship classes and even classes highlighting the dangers of pornography. For Jenny, the failure to address this pointed to an immaturity as a nation around the topic of sexuality. While she accepts different cultures may

have deeply held reasons as to why they would want to exclude their children from classes, many cultural ideas need to be challenged in the name of creating a more equitable society, especially around women’s wellbeing. The best practise currently was open dialogue with the community, educating whanau as well as kids around current trends and dangers in the hope this transparency lets parents see the urgency of such education.

PENZ president, Celia Fleck, who despite a busy schedule, ran her own workshop around effective course design (Bang For Your Buck) was confident the conference had been another winner by the amount of times #inspiring had been used by teachers on their social media accounts and in discussion in reference to the three days. Adam Wilson of Orewa College, one of the final keynote speakers on a teacher panel, summed up the 61st PENZ conference with...

“He tangata, He tangata, He tangata” (The people, the people, the people)

A familiar whakataukī, but, as Celia pointed out, both a testament to the commitment to students and innovation on display in the over 70 dynamic workshops, and a vital reminder of what matters with change on the horizon.

“We (PENZ) have to keep advocating and increasing awareness for what constitutes quality physical education. And with all the changes that may take place, we don’t get caught up and lose the integrity of our learning area. That has to be front of mind for us as an organisation, so we’re serving our members”.



Prof Peter Chen, Prof Ian Culpan, Liz Thevenard and Margot Bowes



Margot Bowes, Trevor Garrett, Lisette Burrows Robyn Cockburn and Celia Fleck



Lisette Burrows, Lady Joan Gillies and Ian Culpan

Café Crawl and President's Lunch

The 61st annual PENZ conference offered one of the few chances in the busy school year for physical education teachers throughout New Zealand to escape their teaching-bubbles and share a space with hundreds of their colleagues. To capitalize on this, PENZ place equal importance on planning "extra-curricular" activities such as social gatherings that continue to foster a sense of community and allow the whanaunatanga to grow, and in the honouring of excellence and service in the profession, through the annual PENZ awards.

On Monday night (Day One), an army of teachers took over some of Courtney Place's most sought-after eateries, "The Tasting Room", "Hummingbird" and "Siglo Bar and Kitchen" for a café crawl. Attendees were divided into six groups, that rotated between the three establishments for entrée, main and desserts. The café crawl was a chance to further cement new contacts and friendships and debrief on some of the mind-expanding workshops, before doing it all again the following day.

Tuesday afternoon, the annual PENZ awards took place in the hall of Queen Margaret's College. The awards were followed by a President's Lunch, that brought together many of PENZ's past presidents and lifetime members.

In attendance was recent past-president Margot Bowes, the recipient of this year's PENZ life member award. A physical education teacher for over 30 years, current lecturer at Auckland University and subject expert to NZQA, Margot was clearly emotional upon receiving the award, an acknowledgement for her almost career-long commitment to PENZ.

"I had no idea I would be receiving an award today. I was completely overwhelmed. Especially looking out over that audience. There would've been a hundred of my ex-students and colleagues".

While the acknowledgement of your peers is always a special honour, it also marked a milestone for the organisation following Margot's testing three year stewardship. As daunting as the role of president had been, Margot had felt prepared through being a long-serving board member (12 years) in charge of several offices including awards and policy, and she benefited immensely from the support of past presidents, namely Allen Ovens and Lisette Burrows.

"An initial challenge would've been around fighting the urge to get stuck in with day-to-day management, rather than honour that governance role; setting the strategic goals that reflect the direction members want to travel in".

But when the actions of a former staff-member brought the organisation to the brink of bankruptcy, Margot was called upon to make additional sacrifices, such as stepping in as PENZ CEO for a few months, and taking on the massive responsibility of employing a new CEO at what was inarguably the organisation's lowest point. Margot says that it was the organisation's special unity that pulled PENZ through, and now, after only two short years, PENZ has not only left behind its darkest day, it's as financially secure as ever.

"I consider Margot the Godmother of Physical Education in NZ. She epitomizes everything we stand for" says current PENZ president Celia Fleck, now in her second year in the role. Celia had been on the board during the crisis and saw both the personal toll the crisis took on Margot, and the skills that helped the organisation through.

"She co-opted some really good people, and just knew how to get the best out of them".

"Celia's a very skilled communicator and collaborator. One of the things she's done in her time is to really embrace the treaty and ensure the board members are upskilling in terms of te reo Maori, and their understanding of bi-culturalism."

Taking her place at the head of the table this year was a very special moment for Celia too, who came of age as a teacher in the capital.

"Having had my teacher training in Wellington it was nice to be able to acknowledge the local people who played a part in PENZ nationally, and with me personally in my teaching career. Last year we were in a position where we felt, wow, we survived this. But this year we were able to really appreciate our gains".

With plenty of cause for celebration, it was good to know a venue was ready and waiting. Later in the evening the conference moved to the Harbourside Function Centre overlooking Wellington's Harbour, for a costume party, some dancing to live music, and a chance for colleagues to enjoy the opportunity to be together.



PENZ Awards Conference 2019

Outstanding Physical Education Award:

Maoribank Primary School, Upper Hutt

This award is presented to an early childhood centre, school, or department that has demonstrated excellence in intra-curricula Physical Education.

Maoribank Primary School has introduced a whole school focus using Mason Durie's Te Whare Tapa Whā model of Hauora. This work was started through the Health and Physical Education curriculum, but the framework is now being linked across all curriculum areas, and is being used for reporting to whānau.

Maoribank Primary School demonstrates a high level of commitment in connecting with their local community, enabling students to learn about and access community resources, and giving them an opportunity to give back to the community through events such as Kapa Haka.

They have had a positive impact on schools around them in their local community and further afield due to their willingness to share good practice and work collaboratively with others. This is not only evident from the teachers but also the senior students working with students from other local schools. The work being done by the teachers and leadership in this school in Health and Physical Education is having a positive influence on other teachers and schools in their local cluster. As a school they are seeing improved outcomes for their tamariki as a result of being very deliberate in the way they deliver a holistic Health and Physical Education programme.

Outstanding Physical Education Teacher Award:

Gus Shirley, Waimea College, Nelson

Gus is an exceptional physical educator, who is renowned for his mentorship. As a sports coach, a senior member of staff, a HOD for 10 years, a leader for other school middle leaders, a dean, and now Kāhui Ako for the region; he is respected and sought for his expertise in leading others. His core strengths are in integrity, professionalism and positivity. He is exceptionally creative when it comes to curriculum design and embraces criticality. He is incredibly humble and leads with the philosophy "know yourself, be yourself and back yourself" and uses this to inspire others in lifelong physical activity and well-being.

Gus received letters of support for his nomination from his principal, fellow colleagues, current staff, the

HOD he mentored, sports directors and other schools in the region. One person commented, "His reach in empowering young people to make good choices about their lives cannot be measured. His impact on the community is ongoing". In 2008, Gus led a local PENZ cluster in this remote area, making sure that the region had the support they deserved. Over a 5-year period, he led the mahi on local workshops, mentoring new teachers, and connecting the region in sharing best practice. This nominee is not only a well-known and respected teacher, but a nationally regarded coach. Often opponents of his teams would comment to the calibre of the students – not only the tactical talent of the players, but the sportspersonship and culture he would foster.

Outstanding Physical Education Teacher Award:

Adam Wilson, HOD HPE Orewa College, Auckland

Adam is an extremely dedicated, passionate and reflective learner, teacher and leader. He strives to have an innovative department, who are willing to take risks for their students. He always leads by example - which instils confidence in his staff who feel very supported by him. Adam consistently creates new resources, activities, units and initiatives to support the growth of staff and students. He volunteers for Auckland PENZ, developing with others a strong Scholarship programme, to further support teachers and learners in the PE community. Since joining Auckland PENZ Adam has introduced the community to many critical thinking tools that are now cemented practices within many departments around the city and New Zealand. Additionally he has created cluster groups to have rich discussions with teachers across Auckland about teaching and learning programmes and assessments. When you walk into his classes, there is a strong presence of respect, engagement and humour. His students speak highly of the time, energy and enthusiasm he puts into planning and running their lessons, as well as the genuine care he has for their learning and overall success.

Adam is an inspirational leader who has made and continues to make a significant contribution to the Physical Education Community.

Tane Pepeke Award:

Rototuna Senior High School, Hamilton

In the period where Rangi and Papa were joined, their children were in various states: crawling, sitting and lying

down cramped between their parents. Consequently, they became restless and curious of what might exist outside of their parents. Tane Pepeke was the name given to the atua that brought light to darkness through lying on his back and pushing up against the sky so that enlightenment might ensue. Therefore, for the first-time light came in and a thirst for knowledge was begun. Tane Pepeke is also a connection to power as this was the first time the legs were used physically with the consequence that humans also began to run, jump and produce power.

The group of individuals receiving this award are the people that initiated the drive, the interest, the striving for the best in their community to reach toward the light to pursue greatness through Te Ao Māori in Physical Education. The people awarded this represent the light that they bring to their communities so that they may LEAP forward and engage with multiple ways of knowing physical education. Not surprisingly, it's a Māori worldview to understand the concept that light is connected with knowledge and from that knowledge we ensure our people are uplifted and survive. These award winners ensure that their communities will survive by providing knowledge about the importance of Physical Education, Te Ao Māori and the uplifting of the spirit in others.

Rototuna Senior High School have shown courageous leadership as a senior leadership team – many of whom are Phys edders - and the Health and Physical Education learning area, to lead their whole school in developing a common language for learning founded in kaupapa Māori. They have developed six mindsets of Haututu, Māhinga, Whakapapa, Kaimahi, Hui (a-tau) & Hapori to frame their learning modes as a kura.

Te Iho-Takaro Ringawera Award:

Dr Ihirangi Heke

The Te Iho-Takaroa Ringawera award is made by the PENZ Board for contributions to the profession that may be left field because at times they will be removed from the day-to-day work of Physical Education. The contribution is 'golden' in that it is often done in obscurity but is highly prized as in the distinguished and respected work of a 'ringawera'.

This year the board has chosen to acknowledge Dr Ihirangi Heke who was instrumental in working alongside Nichola McCall and the Māori Advisory Group in 2018, in establishing our two new Māori Awards - the Tane Pepeke Award and the Tama te Uira me Hine te Uira Award. We thank him for sharing his knowledge of

atua and helping to frame the narratives for these two awards.

Ihi has also supported the board in our commitment to improving our cultural competency, and has spent time with us to improve our understanding and challenge our thinking around Mātauranga Māori.

Fellow of PENZ Award:

Barrie Gordon, University of Victoria

Barrie has made an outstanding contribution to the Physical Education community, locally, nationally and internationally for nearly 40 years. His contributions have been sustained and outstanding for the profession, providing quality teachers, on-going PLD for teachers and academic leadership for PENZ. He is a very strong advocate for the quality teaching and learning of Physical Education and is always willingly to mentor and support teachers in their growth and development towards this goal.

Barrie spent fourteen years as a secondary school health and physical education teacher. He has subsequently worked as a lecturer in Initial Teacher Education at Massey University and Victoria University for over 25 years. Barrie presents regularly at PENZ, and attends, and presents at many more national and international conferences. He is a regular contributor to the NZ Journal of Physical Education including editorials. He is an avid supporter of PENZ and regularly works with a variety of schools and physical education teachers on physical education pedagogy, and in particularly the Teaching Personal and Social Responsibility (TPSR) model.

Barrie received a Fulbright Senior Scholar award in 2012 to research an out-of-school activity based programme for boys at risk in Northern Illinois. This work has subsequently led to a series of international research collaborations around TPSR and social and emotional learning through physical education and sport contexts. Other significant accomplishments include;

- 14 peer reviewed articles in the last 5 years
- Journal of Teaching in Physical Education editorial board
- Academic reviewer for numerous international journals related to sport, physical education and social and emotional learning.
- A member of the TPSR Alliance Board.
- Supervisor to Doctoral and Masters students, and thesis examiner
- Advisory to Sport New Zealand Physical Literacy.
- Over 60 presentations.

Barrie first joined PENZ as a first year teacher in 1978 and has been a member since that time. He was chairperson of Waikato PENZ 1998 to 2000, a member of the PENZ Academic Advisory Board since 2009, and has worked on many local conference committees. Commissioned for many reports, including one for the ministry of social development, Barrie is sought for his expertise on character development, quality physical education in the primary setting, moral development and personal and social responsibility.

It is a great honour and pleasure to present the **Fellow of PENZ Award to Barrie Gordon.**



Fellow of PENZ award:

Dr Dennis Slade, Associate Professor Massey University

Over the course of his career as a teacher and academic in Physical Education, Dennis has displayed significant and sustained national and regional contributions consisting of his substantial publications in the area of Games Sense and Teaching Games for Understanding (TGfU), his contribution to the introduction of Sixth Form Certificate Physical Education, his prolific and high-quality articles for the Physical Educator Journal, his frequent, well-attended and quality PENZ Conference presentations, and his willingness to lead physical education workshops for PENZ and assist with National Conference organisation.

Since 1999, Dennis has presented well over 100 practical workshops in New Zealand and internationally in physical education and sport coaching. While the majority of these courses have been for sport

organisations his presentations have always reflected PENZ and PE values. They have ranged from National Organisations for Netball New Zealand, NZ Rugby, NZ Hockey but also to small, after school in-service refresher courses for teachers, for example, Levin Intermediate and Te Horo primary school. Internationally he has been a key-note speaker and presenter in Eindhoven, The Netherlands, Germany University of Sport Cologne, Hong Kong, and Singapore.

Dennis's work is consulted and respected widely, both in the academic sphere and as practical textbooks for practitioners. He has written extensively for the PENZ journal. Since 2011, he has written over 20 articles for PENZ Journal publications on the subject of teaching games for understanding (TGfU). In that process he has become the single most prolific author of articles to the PENZ journal. More importantly his articles are eagerly awaited in the journal and are extremely well used by members in their teaching. They have provided knowledge for teachers around TGfU and how to put Games Sense into practice in secondary classrooms.

Some of his other accomplishments include:

1. 1987 Syllabus 'Road Show' Promoting.
2. Being appointed as the New Zealand Universities Vice Chancellor's Representative overseeing the introduction of Assessment Scheme for Year 13 (7th Form) Physical Education programme based on the 1999 Syllabus.
3. Teacher in-service education and local/regional PENZ workshops
4. New Zealand representative on the TGfU International Advisory Board

Dennis has served Physical Education in New Zealand over many years and during this time has demonstrated a strong commitment to the work and strategic values of PENZ. Dennis has also been a representative on the PENZ Tertiary Advisory Group since its inception and is a highly respected academic and a productive researcher in the field of games-centred learning, TGfU and Physical Education. His contributions have been underpinned by a strong belief in the value of teaching and the value that games-sense learning can bring to the education of young people. He is described by his peers as an effective and innovative teacher and physical educator.

It is an absolute pleasure to award the honour of **Fellow of PENZ to Dennis Slade.**



Life Member award:

Margot Bowes

Margot embodies the purpose and intent of health and physical education. Movement is, and continues to be an integral part of her life. From walking the dog, playing tennis and golf and using forms of physical activity as a reason to get together with others, physical activity continues to contribute to her pleasure and enhances her own life, as well as the lives of others. A graduate from the Otago School of Physical Education, she brings over 30 years of experience in physical education as a teacher, HOD, Senior Manager, teacher educator, lecturer and subject expert to NZQA and Ministry of Education. Margot has received numerous awards for her teaching including:

- Faculty of Education Sustained Excellence in Teaching Award for 2012,
- Nominated for a University Excellence Award for Sustained Excellence in 2013
- Awarded the inaugural CLearR Fellowship for the Faculty of Education for 2014.
- Nominated for a Leadership in Teaching Award in 2018
- A member of the School of Curriculum and Pedagogy Research Committee.

Her contribution to Auckland and National PENZ has spanned 25 years and she has held a number of roles in that time; Chairperson, Treasurer and supporter of all initiatives. Margot is known for her leadership as President, at a time when she was required to govern and lead with mana, professionalism and consideration. She did so exceptionally well.

Margot's PENZ awards include:

- 2010 Awarded Fellow of PENZ
- 2018 The inaugural Bob Stothart memorial keynote

Margot has always believed in working with the community and meeting sector needs through modelling, moderation, workshops facilitation and resource development. She asks questions of what is needed and works to solve them, her ideas for a PhD is a perfect example. She has expertise in critical evaluation, skill acquisition, technology enabled feedback, assessment and mobile learning, critical pedagogical approaches to senior school physical education, visible learning and ways of planning for and organising curriculum.

Most importantly, Margot has always been a connection between the secondary and tertiary sectors with a care and passion for the subject and its practitioners.

It was commented that Margot is "Selfless in her promotion and encouragement of others. He tangata he tangata he tangata. She seems to know that education, promotion and development of PE is not about one person but a collective growth."

It is an absolute pleasure to award the honour of **PENZ Life member to Margot Bowes**

Review of Achievement Standards

Heather Lindsay

As a result of public consultation throughout 2018, the Ministry of Education is adopting seven key changes to the NCEA qualification, including a Review of Achievement Standards (commencing in 2020). The Ministry has acknowledged the need to review all Achievement Standards derived from the National Curriculum – both the New Zealand Curriculum and Te Marautanga o Aotearoa, as most standards have not been systematically reviewed for five years or more.

As part of the review, all Subject Matrices, Achievement Standards, Assessment Resources, Teaching and Learning Guides, and Exemplars will be reviewed. Supports will be expanded to include three assessment tasks and additional exemplars for each reviewed standard.

The perspectives of other standard setters eg. Industry Training Organisations, will be included at specific points during the review and in the writing process. Achievement standard development will not be done in isolation from unit standard development, insofar as it impacts on the design and delivery of those for schooling contexts.

In May of this year, the Ministry of Education formed a Review of Achievement Standards Reference Group to provide input into the development of new Achievement Standards across both curricula. Membership is largely drawn from across subject associations, with representation from Māori-medium education in dedicated settings and Māori language in English-medium schools, NZQA and PPTA. In my role as subject advisor for PENZ, I am attending these group meetings.

The Reference Group has been established for the 2019 phase of the Review process. It will operate through smaller groups to discuss and test the ideas and approach presented by the Ministry. The function will be to advise the Ministry on the detailed design and implementation of the RAS process

Currently, the mahi being undertaken by the Reference Group includes addressing the following questions:

1. How can we put the curriculum first so that the assessment falls out of learning?

2. What is the critical knowledge and skills/capabilities in your subjects?
3. Who might the experienced teachers and innovative thinkers in our subject areas be who could contribute to this process?

At the beginning of August, the Ministry of Education will be seeking expressions of interest to participate in Subject Specialist Groups who will be working on the design and content of what will be assessed in the new Achievement Standards. Each subject will be designing four new standards worth between four and six credits each, two to be internally assessed, and two to be externally assessed (this does not necessarily mean exams).

Professional Learning Development priorities have been identified to support the implementation of the NCEA change process. The three focus areas for this PLD are:

- Cultural Capability: Building cultural capability so that all ākonga are secure in their identity
- Local curriculum design: Relevant and engaging local curriculum design that is truly responsive to the needs and priorities of ākonga, whānau and the community
- Using Information to Support Learning: Enrich learning in the classroom by growing aromatawai, inquiry and assessment capabilities and use of information to support students strengths

For those of you who are wanting to learn more, a series of 'Understanding the changes to NCEA' workshops will be held across New Zealand in the coming weeks. These workshops will cover:

- Key things to know about the changes
- What New Zealanders reported last year that led to the changes
- How the changes will impact and benefit students, teachers and kaiako, parents and whānau, and the wider community
- When the changes will happen

To register for an event go to <http://www.conversation.education.govt.nz/events>



Enabling constraints for promoting flexible game understanding and shape.

Dr. Dennis Slade: Associate Professor, School of Sport, Exercise & Nutrition. Massey University

Introduction: Understanding game structures and playing relationships

Watching games and its teaching has prompted this different approach to a topic I have published on previously (Slade, 2015). The approach to learning games outlined below has less of a focus on the motor skills, though obviously fundamental game skills are required and are being rehearsed, but more of a focus on understanding the structure and shape of the game. The intent is to heighten awareness of different player roles in games, relationships, positional awareness and what a change in strategy can do to the game and a team's performance.

Longer term, one wants the players to understand such tactics and strategies and to promote their education in games so they become critical observers who can enjoy games and sports from different perspectives.

Enabling constraints: Flexible game structure

The favourite question from the media interviewer after a 'half-time' break, usually to the assistant coach of the team not winning is, 'What do you think you need to do to counter the opposition's tactics or how to change your current losing position to winning?' The question assumes that someone has analysed the opposition's performance and decided on how their own game plan or structure has to change in order to overcome the dominance of the opponent and 'get back into the game.' The enabling constraints suggested with this simple game is designed to facilitate that scenario and encourage players to consider their playing style and the need for flexible playing strategies.

Teams choose strategic change in their playing shape or structure

A session starts with the basic game and its constraints set out below. However, if a team drops behind on the score line by two goals that is a signal for a time-out and for the team not winning, to employ one of the constraints they can bring to the game in order to catch up on the score board (See below for constraint options).

At the time out, allow a little time for this discussion and ensure everyone in the team understands how the change in structure is intended to help their play. This is important as it is implicitly requiring the team to consider their strengths,

how to over-come the opposition's strengths and basic game structure.

The key is to have the team choose the constraint and to agree on why it is chosen. This approach requires you, as the teacher or coach, to establish democratic values around taking turns to talk, listen, justify position and at times compromise.

For the team winning they too have to consider how they will respond to the opposition's choice of new tactic.

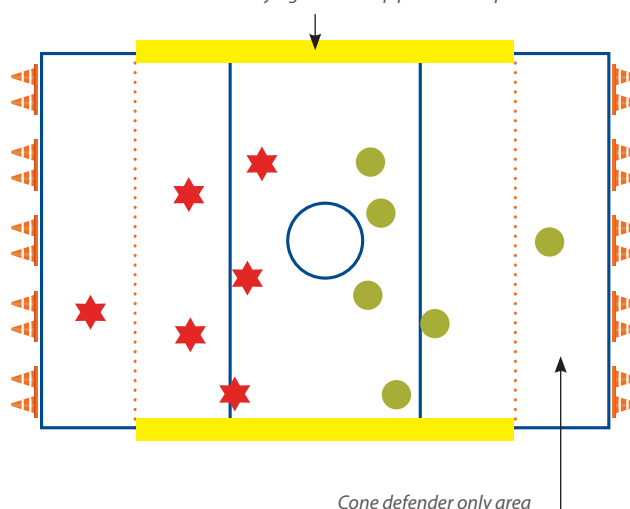
Game-on

Hopefully the change allows the team to catch-up and then it is up to the two teams playing to decide whether they should revert back to the original game structure or allow the team to keep their imposed constraints.

Cone Ball

The set-up is as per the diagram on a netball court designated by the heavy dark blue lines. I've left the other netball markings off for ease of explanations. The 'cone defender area' is inside the end third of the court and the targets, five sets of two cones placed together, are positioned along the end lines of the netball court.

Outlet – wide channel a team trying to catch-up points can opt to use



1. Moving the ball

Two options: either

- netball passing rules or
- Run with the ball – If you opt for the running rule then players must bounce at least once in each third of the court. In the running with the ball version, a 'Tag' is a tackle. No limit on tackles.
- Require teams if tagged in defensive 2/3's to make a back pass.

2. Turn-over of possession

- Dropped ball
- Ball out
- Run out with the ball
- Goal
- Missed shot goes beyond goal line

3. Positions

- Six players per team – but you decide numbers.
- One player is the goal-keeper/defender.

4. Scoring

- Ball thrown from outside the goalie zone and hits a cone.
- In running version an attacker cannot have shot at goal if currently tagged.

5. Restart:

Ball out: Throw in.

Dropped ball: opposition pass

Goal: Goal defender starts by throwing the ball back into play. Rotate goal defender regularly.

Changing tactics Options.

The following adaptations are the key to the learning intentions of the game structure that are employed when a team is losing by two points. The team behind by two goals or points chooses a modified constraint for the and plays with that modification until the scores are even or longer if agreed. Teams can only use one modified option at a time. However, if they drop further behind then can have two options etc. The teaching key is to question their choice – what effect they expect their choice to have on the game. Ask them to justify their choice in terms of over-coming their opponents' strengths (Interview the team!).

Some choices (You or the players can make others)

- When in possession of the ball use a wide player in the outside channel – no-one else allowed into the channel so an easy up field flanking movement (Gives their game more attacking width)

- If there is a turn-over of possession the wide player can come out of the channel to help with defence.
- Have an extra goal defender from one of your field players when your team is defending (Constraining defence).
- Require opponents after any turn-over of possession in their attacking half, to all retreat to their defensive half of the court (Half-court defence). They cannot tag or intercept passes of your team until the ball is brought over half way. This is my favourite as it encourages the team to think about how to set up their attack and it gives them time on the ball to apply that tactic.
- Require a man-to-man defence
- If playing the running with the ball version do not require the team losing to use the back-pass rule.

Questioning:

It is important that the options are discussed. Players need to consider how the option they choose will affect the structure and the shape of the game.

Final version of the game is to have teams play without the constraints but have team talks about positioning

Extension:

Once the game structure is understood you could get teams to:

- Decide before the game starts what option they will employ once they have possession of the ball that the other team has to adapt to – only allow one at a time.
- This also lends itself to teams deciding and making decisions around – if we do this what is the best formation for our team to adopt in-order to exploit our strategy?

Summary

One of the things I like about this game is the idea that the team behind on the score board gets to change how they play – adapt their game plan to catch-up. In the extended version I've just described, you could allow teams to change their strategy after 5 minutes of play. If you're rotating teams then as the teams exit the court another opportunity to discuss their strategy and make changes if they desire.

The implications of this are infinite – great fun for the students and also interesting to teach.

Reference:

Slade, D.G. (July, 2015). Constraining to be flexible: Teaching the concept of flexible team structure through a game sense approach. New Zealand Physical Educator, 48 (2), 31-32.



The effect of blocked and random practice on the leg power of four adult male Water Polo players

Sunde, A., & Slade, D.G. (2019)

ABSTRACT

The application of blocked and random practice protocols are most typically associated with learning motor skills. Blocked practice being most frequently applied to novices, introduction of new techniques or a form of remedial refinement or refresher activity. By contrast, random practice is most often associated with the development of motor skills in more advanced athletes. Research on the application of the two methods typically results in superior immediate performance associated with blocked practice but better retention or learning of techniques with random practice structures (Schmidt & Lee, 2014).

This study provided a different focus on the application of those practice structures in that it sought to discover how they might impact on the development of strength in an applied water-polo activity, the 'egg-beater' treading water technique that is an essential part of play in water-polo.

Within this study it was shown that random learning structures provided superior strength gains on delayed tests of the water-polo egg-beater technique. This investigation provides support material for teachers and students of the New Zealand NCEA Senior School Physical Education programme for Level 2.2 and Level 3.3

INTRODUCTION

In order to excel in water-polo a high level of competence is required, not only in swimming but also in many of the other complex skills associated with this sport. One such skill is the ability to lift oneself out of the water in a vertical position with the arms and hands free in order to block opponents, give and receive passes or to provide an optimum goal shooting platform. The technique associated with this requirement is to tread-water using the egg-beater technique that when applied with sufficient power can elevate the player out of the water to that position. To achieve that position the player's legs require a mixture of strength and speed to propel them both through and out of the water and hence power is crucial for players. With power being a product of strength and speed, training schedules to train these two elements need to be organised to provide the right form of practice to allow for the best possible performance outcomes.

BACKGROUND

Past motor skill learning literature has identified two different forms of practice, random and blocked learning, that have been seen to impact motor performance. One, random practice involves training multiple skills at once and often in a circuit so that there is minimal repetition of consecutive tasks and two, blocked practice. Blocked practice involves training a single skill continuously before moving on to another task. Research on the relative effects of the two practice regimes suggests, within practice performance is enhanced by blocked practice but is diminished on post practice tests, a context where skill acquired under random conditions excels (Merbah and Meulemans, 2011; Shea & Morgan, 1979).

This theory of the benefits of each practice regime was applied to ascertain whether such motor learning effects could also be achieved in seeking improvements in the leg power essential for the performance of the egg-beater water-polo skill.

AIM

To investigate whether random practice will produce better leg power results than blocked practice in the performance of the egg-beater water-polo treading water technique.

HYPOTHESIS

Random practice will produce superior leg power results than blocked practice.

METHOD

Three different leg exercises that replicate the muscle group engagement seen in water polo were identified as contributing to muscle power in the egg-beater action and were used for the practice treatments. To measure leg power, before and after the treatments, a relevant leg test requiring both strength and speed was used.

Four skilled adult male water polo players were contacted and once participants were informed about what the experiment involved, their consent was given to begin the experiment. Two participants were randomly assigned to the random practice treatment protocol and the other two to the blocked protocol. Table 1 shows the pretest-treatment-posttest format that the experiment followed.

Table 1:

Group	Pre-treatment Test	Treatment			Pre-treatment Test
1	P1	T1	T1	T1	P2
2	P1	T2	T2	T2	P2

P1 and P2: water polo power test

T1: random practice session

T2: blocked practice session

Before both tests and all treatment sessions, the participants were taken through the same basic warm-up routine of swimming and kick pool lengths in order to ensure their bodies were prepared for the intense tasks as well as to prevent injuries. The experiment was completed across a five-day period with the pretest, three treatment sessions and the posttest on separate days. Each of the participants were tested at a different time to prevent any competition to achieve better test scores. Furthermore, participants were not told their pre-treatment test score until after they had completed their post-treatment test in order to provide maximal attempts without any purposefully increased efforts to better their original score.

WATER POLO EGG-BEATER LEG-POWER TEST

Participants were positioned in the middle of a water polo goal directly beneath the crossbar. The test required them to continuously egg-beat and elevate out of the water with both arms to tap the crossbar above. Whilst keeping their hands dry from start to finish, each participant had one minute to achieve as many double arm taps as possible and their score was the number of taps they successfully completed (only successful if made contact with crossbar).

RANDOM/BLOCKED PRACTICE

The blocked practice treatment involved three sets of leg exercises corresponding to each session: static medicine ball work, static vertical jumps and dynamic kick lengths. The medicine ball work used a 5kg ball and required participants to egg-beat on the spot whilst holding the ball out of the water at wrist level for 30 seconds. They then had 1 minute to rest and repeated this process a total of twenty-one times. The second session involved the vertical jumps where participants had 30 seconds to complete fifteen maximal alternating single arm jumps. Again there was 1min to rest and it was completed a total of twenty-one times. The final session contained maximal kick lengths with their arms out straight holding a kickboard. Participants completed 50m of freestyle kick then 50m of breaststroke kick, followed by a 30-s rest then 50m of horizontal eggbeater and

50m of double breaststroke kick, all maximal. After this 200m participants had 1 minute to rest and then completed this again twice for a total of six times.

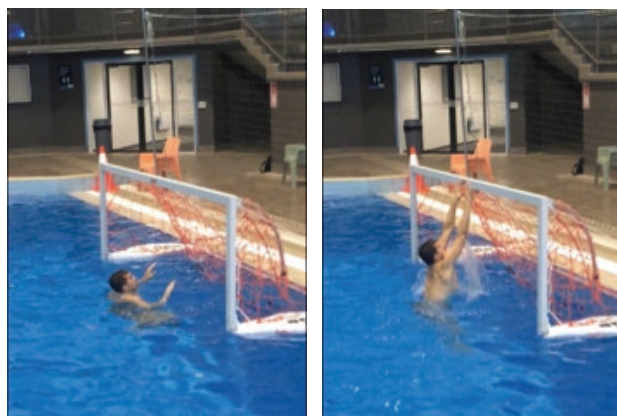
The random practice treatment utilised the same exercises and work/rest ratios but sessions consisted of circuits of leg exercises. Rather than doing all one exercise in a session, each of the three sessions contained seven sets of

medicine ball, seven sets of vertical jumps and two sets of maximal kick lengths. The circuit during each session

was completed in the following order to avoid consecutive repetition:

1. Medicine ball
2. Jumps
3. Repeat steps 1&2 twice
4. Kick lengths
5. Repeat steps 1-4
6. Repeat steps 1&2

Sufficient time was allocated to ensure the transition between different exercises occurred smoothly with adequate rest time between consecutive exercises.



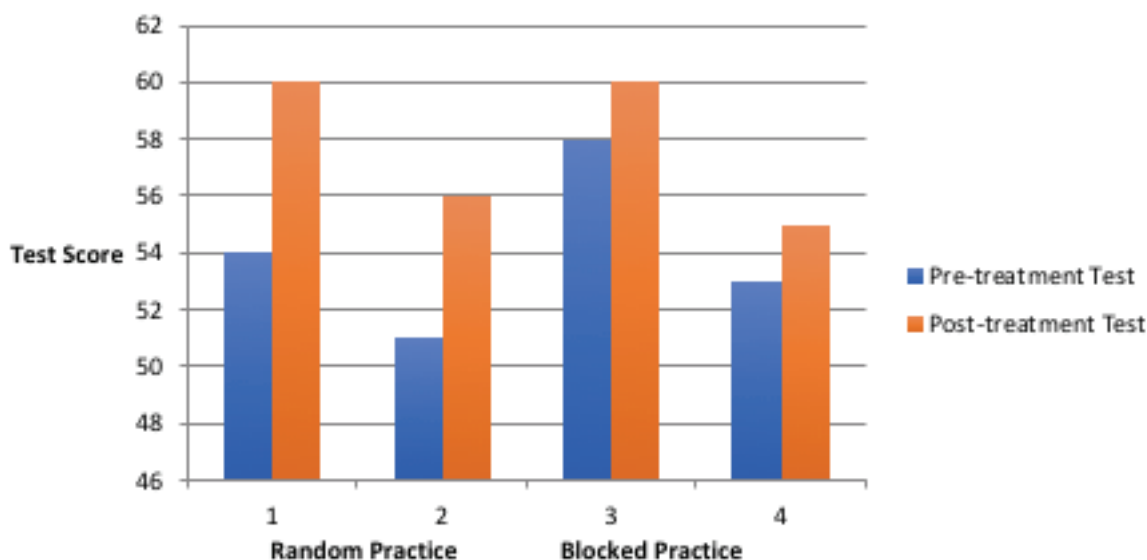
Photos illustrating the protocol of the Water Polo Egg-beater Leg-power test

RESULTS

Both random and blocked practice improved leg power test scores. However, the data clearly shows that the improvement in leg power that came from the random practice treatment was greater than that of the blocked practice treatment.

Table:2 Pre and Post Treatment Leg Power test scores for both treatments

Treatment	Random Practice		Blocked Practice	
	Participant 1	Participant 2	Participant 3	Participant 4
Pretest	54	51	58	53
Posttest	60	56	60	55



Graph showing the effect of random and blocked practice on leg power test scores

DISCUSSION

The results of this experiment support the research hypothesis that random practice would provide a greater improvement in the leg power test scores than blocked practice. Furthermore, the findings of this study are in line with that of Bortoli, Robazza, Durigon and Carra (1992) whom found that random practice groups showed better volleyball skills performance than did those with blocked practice. The CIE as described by Bortoli et al. (1992), is a means to stimulate elaborations of the learning material within the subject. Hence, in training schedules a low contextual interference (CI) correlates to blocked practice, as the sole focus is on mastering one task before moving on to another with the learning being simplified. Moreover, a high CI corresponds to random practice because of the increased number of tasks being focused on resulting in greater cognitive processing to learn the skills.

Interestingly, Merbah and Meulemans (2011) suggested that unlike in laboratory experiments, the research on the CIE in field-based studies is not apparent because ecological tasks are more complex. Due to the fact that random practice requires greater cognitive activity in comparison to blocked practice, there could be some merit in the idea of too much mental information. Merbah and Meulemans (2011) continues by stating that random practice of an ecological task could cause a cognitive overload and prevent its benefits

observed in past laboratory research. However, the current study provides evidence to suggest otherwise, as the leg exercises used during practice sessions represented actions that would be exercised in a real water polo game. In turn, with random practice providing better improvement in leg power, it implies that ecological tasks did not cause a cognitive overload and going forward this research can guide training schedules for other water polo activities.

Aiken and Genter (2018) looked at the effect of random and blocked practice on variations of the golf chip shot and demonstrated that random practice facilitated the learning of multiple variations of the chip shot that required adjustments in swing. As you can see random training of slightly different motor programmes for similar tasks can be an advantage. This theory was proven by the results of this experiment because both random and blocked practice utilised the same leg exercises, where all three exercises worked similar muscle groups but all had somewhat different requirements controlled by different motor programmes. This research suggests that high CI practice might be suited for more elite athletes looking for any advantage to further increase their performance for competitions. Aiken and Genter (2018) summarised by saying that it will be highly useful for coaches to learn how to manipulate practices in order to bring about better skill acquisition of complex movements.

Another factor in the experimental method that impacted the results was the period of time between the final practice session and the post-treatment test. Merbah and Meulemans (2011) noted how the timeframe between training ending and a retention/transfer test is crucial because this is when the learning of skills benefits from a consolidation process. In addition, Aiken and Genter (2018) outlined how ample time after training allows the participants to forget the tests and tasks trained, then provide the experimenter with an opportunity to look at the learning of the practiced skills by examining skill permanence. A period of twenty-four hours was used in this experiment and not surprisingly; random practice provided better transfer and retention of performance. However, the importance for training schedules is in ensuring that the period of time to allow for transfer and retention is appropriate for the type of training being completed.

A further variable that cannot be discounted is the skill factor required to perform the test. The pre-test provided data to distinguish between the participants but what we do not know is whether the block/random learning structure also impacted on the technique of the action regardless of the suggested improvement in strength.

CONCLUSION

Whilst this experiment provides information about random and blocked practice, it also highlights a need for the proper knowledge when creating training schedules and deciding the type of practice to implement. It is important to understand that there is no universal form of practice that can be used in all contexts for all athletes to bring about performance benefits (Merbah & Meulemans, 2011; Slade, Martin, & Watson, 2019). Merbah and Meulemans (2011) continue by detailing that both the task and athlete must be understood properly because the learning of basic skills and tasks will thrive in difficult conditions with a greater load, whereas acquisition of complex skills will require scenarios that decrease the load on the athlete. Furthermore, retention and transfer are the focus of this type of research and trainings may require the need for a combination of practice forms. The results of this study along with Merbah and Meulemans (2011) advise using blocked practice at the beginning to reduce the stress of learning skills but then shifting to random practice in order to enhance the cognitive elaborations and provide the athlete with better retention and transfer of skills.

References

- Aiken, C. A., & Genter, A. M. (2018). The effects of blocked and random practice on the learning of three variations of the golf chip shot. *International Journal of Performance Analysis in Sport*, 18(2), 339-349.
- Bortoli, L., Robazza, C., Durigon, V., & Carra, C. (1992). Effects of contextual interference on learning technical sports skills. *Perceptual and Motor Skills*, 75(2), 555-562.
- Mahill, R. A., & Hall, K. G. (1990). A review of the contextual interference effect in motor skill acquisition. *Human Movement Science*, 9, 241-289.
- Merbah, S., & Meulemans, T. (2011). Learning a motor skill: Effects of blocked versus random practice a review. *Psychologica Belgica*, 51(1), 15-48.
- Shea, J. B., & Morgan, R. L. (1979). Contextual interference effects on the acquisition, retention and transfer of a motor skill. *Journal of Experimental Psychology: Human Learning and Memory*, 5, 179-187.
- Schmidt, R. A., & Lee, T. D. (2014). *Motor learning and performance: From principles to application* (5th ed.). Champaign, IL: Human Kinetics.
- Slade, D. G., Martin, A. J., & Watson, G. (2019). Developing a model for game-centred learning. *Physical Education and Sport Pedagogy*, 24(5), 434-446.

