



Lessons learnt from overseeing the coordination and implementation of the AIS Coach Summit Program: An insider's perspective

Dr Paul Perkins

High Performance Coach Development Advisor

Australian Institute of Sport

Associate Professor (Adjunct)

University of Canberra Research Institute for Sport and Exercise

December 2023

Table of Contents

INTRODUCTION	4
General summary	4
Acknowledgements.....	4
Disclaimer	4
Attribution.....	4
SETTING THE SCENE	5
Background.....	5
Capitalising on my position	6
Framing the work	7
Addressing beliefs, values and preconceptions	7
Establishing qualitative rigor	8
CONTEXT	9
Introduction	9
Program overview	9
Key Features	9
Approach.....	10
Delivery	10
Knowledge production processes.....	10
Methods	10
Conversations and discussions	11
Groups and timings.....	12
Current structure	14
KEY LEARNINGS	15
General outline	15
Lesson 1: Coordinating the project required a variety of skills and involved many responsibilities ...	15
Lesson 2: The use of First Nations methods was very well received	16
Lesson 3: A flexible format was important.....	17
Lesson 4: Welcoming, safe and non-judgmental environments were vital	18
Lesson 5: The social learning leaders played crucial roles	18
Lesson 6: Self-determined learning was required	19



Lesson 7: A sense of community was vital.....20

Lesson 8: The program’s benefits extended beyond coach learning.....20

Lesson 9: The program has evolved into an open-ended learning event.....21

Lesson 10: The online experience can be improved.....22

10(a): Use existing technology to create a safe and secure online hangout22

10(b): Provide greater support through use of different delivery methods.....22

10(c): Use the principles of connectivism to guide the work23

CONCLUDING COMMENTS24

Things to consider24

Final remarks25

References and further reading25



Thank you Allan!

“At times, our own light goes out and is rekindled by a spark from another person. Each of us has cause to think with deep gratitude of those who have lighted the flame within us” - [Dr Albert Schweitzer](#).



Introduction

General summary

This report provides a summary of my two-year involvement with the AIS Summit program. It utilises “insider data” generated from that period in an attempt to provide a basis for successful cultivation of similar programs elsewhere through use of a multifaceted, non-theory censored strict approach to research that enables the construction of objects and the transfer of “knowledge gleaned in one area of inquiry into another” [1, p.5].

Acknowledgements

The development of this report would not have been possible without the support of the following people. They helped me in many ways and I would like to acknowledge and express my sincere thanks for their help and assistance.

- **The amazing coaches:** Shared their knowledge openly and freely, provided critical guidance and support, and demonstrated time and time again why they are the domain-specific experts of their sports.
- **Professor Allan Hahn:** Acted as a sounding board for my ideas, supported my reflexive practice and the interpreting of my experiences, assisted with document preparation, and provided unwavering support.
- **Mr Bill Daveron:** Assisted with formatting, encouraged me to pursue my ideas, and provided genuine care when things got rough.
- **Mr Neil Craig:** Provided great advice and much wisdom over the course of the journey.
- **Mrs Sharan Perkins (my beautiful wife):** Sustained me at my most vulnerable times and encouraged me when I needed it the most.

Disclaimer

Every attempt has been made to ensure that the information contained in this report is accurate and ethically sound. However, the author and other persons involved with the development of the report cannot be held responsible and/or liable for any issues that might occur as a result of its use.

Attribution

This document is shared under a non-commercial, share alike 4.0 International [creative commons licence](https://creativecommons.org/licenses/by-nc-sa/4.0/). It enables users to distribute, remix, adapt, and build upon the material in any medium or format as long as the following conditions are adhered to:

BY: Credit must be given to the creator.

NC: Only non-commercial uses of the work are permitted.

SA: Adaptations must be shared under the same terms.



Setting the scene

Background

In July 2021, I was lucky enough to gain a position with the newly formed AIS Coach Development Team. A key requirement of the role was to explore the benefits of more social and collaborative approaches to learning whilst leading the Community of Practice (CoP) component of the High Performance Coach Development Plan.

Although I felt a little nervous at the time, I also remember feeling incredibly proud and extremely excited about the possibilities of undertaking such a project and believed that my background in developing, implementing, monitoring and evaluating multi-layered sport-based development initiatives would hold me in good stead. It was against this backdrop that the idea of using Australian First Nations methodologies and classical learning theories within a coach development context was born. That idea soon found expression and quickly evolved into the AIS Coach Summit Program.

My observations of that experience, along with the implementation and facilitation phases of the project are the subject of this report and, since most coaches tend to favour informal approaches to learning over formal methods [2,3], the information may be pertinent to the future plans of other sporting organisations.



Figure 1: Catching up with my Manager and good friend, Bill Daveron at the start of the project and discussing how we could create an effective and impactful high performance coach development experience.



Capitalising on my position

In an effort to present a detailed account of my experience, practitioner research data generated from traditional methods during my time as the program's coordinator/convenor were examined and explored (e.g., participant observations, surveys, document analysis, informal interviewing, and focus groups). As the name suggests, this approach to investigation is undertaken by people in real world settings as part of their everyday roles and is generally conducted by an individual or group of people that assume the dual role of both practitioner(s) and researcher(s) [4-6]. In this way, it makes use of collective knowledge thereby increasing the likelihood that the research will be translated to practice [7,8] and, perhaps most importantly, it allows for the reporting of data in ways that are inherently embedded within a culture and could therefore contribute to the design and implementation of similar solutions elsewhere [9-11].

Campbell [12] and DeLyser [13] believe that this type of data often generates high-quality research outcomes due to researchers having greater relational affiliation with group members, superior understanding of the phenomena under investigation, and unique positioning to provide an insider's perspective on any practical problems and attempts to address the challenges. In the present case, I "lived and breathed" the experience for the whole two-year period encompassed by the analysis and adopted a highly systematic and deliberate approach to the processes of observation and reflection, as recommended by action research experts [14-16]. The process involved maintaining an electronic journal over the course of the two-year period and included the following actions:

- Jotting down observations, impressions and ideas.
- Recording comments made by the coaches and my subsequent interpretations.
- Summarising salient discussions (yarns) with members of the implementation team and other key personnel outside of the project (e.g., Elders and university staff).
- Documenting the results of my "epistemological experiments" [17, p:389].
- Making methodological notes and updating reflexive insights.
- Cataloguing initial reviews and analysis of field notes to help reveal arising themes.

As a consequence of this commitment to practitioner research, it was possible to supplement the journal with a substantial collection of other project artifacts. This included an archive of email, WhatsApp and text message correspondence in which different aspects of the program were discussed, a substantial contact log, three project reports, one formal evaluation report, a collection of pertinent photos and videos, and several PowerPoint presentations.

Two years of practitioner research therefore enabled reflection on a very rich, diverse and extensive body of recorded information and facilitated the insights presented in this report. Elliott [18] has noted the importance of such sources in analytical reflection, while Leitch and Day [19] consider this type of data critical to the instigation of change and note that the process of collating and writing it up gives substance to reflection that otherwise could remain tacit and amorphous and produce little practical benefit. Accordingly, the latest phase of critical reflection - undertaken for the purpose of preparing this report - is seen as integral to the efficiency and effectiveness of ongoing decisions and actions regarding the AIS Summit program.



Framing the work

The work presented in this report was framed by an epistemological constructivist understanding that knowledge is socially co-constructed and generated from various perspectives [20], and guided by an ontological point-of-view that there are different versions of a reality [21] that when analysed provide a rich and detailed understanding of an experience [22]. It is a philosophical position that acknowledges the interrelated positions of researchers and participants and recognises that researchers must be critical of their beliefs and values, and must challenge any taken-for-granted assumptions underlying their work [23-26]. A researcher's influence from this perspective is therefore "not something that can be neutralised, acknowledged, or simply explained away" [27, p:243]. Instead, it is seen as an integral part of the iterative and interconnected data generation and analysis processes [28,29], and as something that requires constant critiquing and high levels of reflexivity (i.e., "a continuous self-critique and self-appraisal where the researcher explains how his or her own experience has or has not influenced the stages of the research process" [30]).

Addressing beliefs, values and preconceptions

In line with the above, I sought to achieve high levels of reflexivity throughout the life of the project by engaging in repeated cycles of introspective self-analysis that were used to recognise the possible influences my role was having on my relationship with the coaches, team members, the social structures of the settings, and the generation of data. Table 1 provides a summary of these activities, along with the questions that were repeatably asked over the two-year period.

Table 1: Summary of the continuous, multifaceted and self-critiquing approach used to understand and record my evolving preconceptions, assumptions, attitudes and beliefs so that their effects on the data could be considered.

Personal reflexivity	Interpersonal reflexivity	Methodological reflexivity	Contextual reflexivity
Requires researchers to clarify their expectations, beliefs and assumptions, and address any reactions to situations and data [31].	Focuses on relationships and the ways in which they can influence a research project [31].	Considers the impact of methodological decisions and the effects a paradigm can have on a project [31].	Deals with the cultural and historical context of a project and the role that collaboration plays in addressing assumptions [31].
Questions: How is my unique perspective influencing the work and how is the experience affecting me?	Questions: How are the different relationships influencing my interactions, the project, and the other people involved with it?	Questions: Why am I making these methodological decisions and what are the implications?	Questions: How are the different contexts, settings and situations influencing the coaches, me, the team, and the project?
<p>Step 1: Examine observational notes and journal entries.</p> <p>Step 2: Identification of how these assumptions could be impacting the data.</p> <p>Step 3: Re-evaluation, with outcomes recorded in journal.</p> <p>Step 4: Implementation of acquired reflexive insights into practice.</p> <p>Step 5: Repeat process.</p>			



Establishing qualitative rigor

While the above is intended to demonstrate how the learnings presented in this report should be viewed and considered through an interpretive lens, it also highlights how my theoretical and philosophical views about learning and life would have inevitably influenced the perspective that I brought to the work.

That work has incorporated both quantitative and qualitative aspects, and my research perspective has undoubtedly been of particular relevance to the latter. As noted on page 7, however, this point-of-view cannot be neutralised, or simply explained away [27] and should not be confused with potential for bias, since that term is drawn from the quantitative research paradigm and is incompatible with the philosophical underpinnings of qualitative inquiries [32,33]. Attention instead should be focussed on the concepts below, and the degree to which these were addressed, since a qualitative researcher's perspective will be fully embedded within the research process rather than detached from it due to the subjective nature of the work [34-37] (sentiments also expressed on the previous page and something that needs to be considered when reading this report).

Table 2: Strategies employed to ensure key concepts such as credibility, transferability, dependability and confirmability were integrated, adhered to and maintained throughout the life of the project.

Credibility	Transferability	Dependability	Confirmability
<p>Credibility refers to the level of confidence that can be placed in the truth of the research findings [35,36].</p> <p>Credibility was achieved in the present case through prolonged engagement within the research setting, regular observations and interactions with the coaches and members of the implementation team over a two-year period, and by using different sources of data and methods for their collection (triangulation).</p>	<p>Transferability is the degree to which qualitative research results can be transferred to other settings with other respondents [35,36].</p> <p>In the present context, transferability was established through detailed description of the research context so that similarity to other environments could be assessed.</p>	<p>Dependability is concerned with the consistency and repeatability of qualitative research findings [35,36].</p> <p>The approach taken to ensure the findings presented in this report are dependable involved a series of internal and external audits of the data generation, collection and analysis processes and the sharing of alternative interpretations and recommendations by members of the project team.</p>	<p>Confirmability deals with the degree to which findings of a qualitative study could be confirmed by other researchers and is established when credibility, transferability, and dependability are all achieved [35,36].</p> <p>Confirmability of the evidence presented in this report was achieved by outlining why and how the theoretical, methodological, and analytical choices were made.</p>



Context

Introduction

In keeping with the traditions of interpretive inquires [9,34] and in an attempt to enhance the credibility, transferability and dependability of the report [35,36], a brief overview of the Summit program, and of the amazing people who have helped shape its development is presented below.

Program overview

In November 2021, the Australian Institute of Sport launched the AIS Coach Summit Program. It was designed to meet the needs of coaches who are working at the highest level of the Australian sport system and was underpinned by the following principles:

- Human beings are fundamentally social.
- Learning is at the very core of our existence.
- Our identities change as we learn.
- Social structures can encourage and enable meaningful interactions.

Key Features

Key components of the program have been:

- **The regular online catchups:** These provided the initial forum for the interactions and have been the primary mechanism for maintaining those interactions over the past two-years.
- **The two-day face-to-face gatherings:** Whilst initially designed to complement and build upon existing knowledge, feedback from the coaches shows that these events are also contributing to the overall health and well-being of group members by strengthening their connections and enhancing a sense of belonging.



Figure 2: Finding ways to connect and share outside of the online catch-ups and face-face gatherings has become a key feature of the program and is creating a network of highly beneficial and supportive relationships.



Approach

The Program supports a learner-centred approach to development and is underpinned by philosophical and theoretical principles of social constructivism. Coaches have therefore been involved in all aspects of the learning process and have generated their own unique views and perspectives whilst also contributing to the construction of new actionable knowledge.

Delivery

The program utilises “real-world” experiences to identify and explore the unique demands and challenges of HP coaching. The process entails monthly “yarning sessions” with a variety of social learning leaders (see, Figure 3 for details) and involves small groups of coaches (maximum of five coaches per group) exploring contextually relevant and personally identified topics of interest in respectful, encouraging and highly supportive environments.

Knowledge production processes

Below is a brief outline of the ways in which practical wisdom has been generated by the different groups:

- Creation of highly positive and supportive learning environments.
- Development of a pro-active learning community that is responsive to the specific needs of its members.
- Re-shaping and re-using shared information.
- Offering different perspectives and updating existing beliefs.
- Expanding cognitive structures (i.e., “a learner’s conceptions of knowledge, experiences, and emotional make up” [38, p:7]).
- Acknowledging and challenging personal thoughts and feelings through regular periods of “cognitive housekeeping” [39, p:6].

Methods

Methods employed to achieve the learning and broader social objectives of the program, include:

- Participation in regular online interpretive conversations.
- A range of traditional First Nations approaches (see, page 16 for details).
- Using collective wisdom to help shape the direction of the program.
- Encouraging and supporting highly personalised learning journeys.
- The formation of close, supportive and trusting relationships.
- High levels of “cognitive empathy” (i.e., trying to understand what it would be like to experience the program as a participant and making efforts to predict how the coaches are likely to respond to the questions, problems and activities at learning events [40]).
- The provision of structured opportunities for coaches to speak freely and test new ideas in respectful, encouraging and non-judgemental environments.



Conversations and discussions

The following provides a brief overview of the topics that were discussed over the two-year period and the ways in which they were explored.

Table 3: Summary of the different subjects that coaches investigated during their time together.

Management topics	Performance issues	Leadership challenges
<p>The challenges and issues of social media.</p> <p>Coach wellbeing.</p> <p>Athlete wellbeing.</p> <p>Formulating successful actions and strategies.</p> <p>Micro-monitoring not micro-managing.</p> <p>Psychological contracts.</p> <p>Engaging with key stakeholders.</p> <p>Managing complex and challenging situations.</p> <p>The need to establish clearly defined roles and expectations.</p>	<p>Performance wellbeing.</p> <p>The benefits of reflective practice.</p> <p>Competition preparation during Covid.</p> <p>Adaptability intelligence.</p> <p>Developing competitor IQ.</p> <p>Trade-mark performances.</p> <p>Pressure training.</p> <p>Triadic reciprocal models of behaviour.</p> <p>Minimising the inner critic.</p> <p>Taking time to celebrate.</p>	<p>Coach/athlete relationships.</p> <p>Adaptive leadership.</p> <p>Systems thinking.</p> <p>Organisational alignment.</p> <p>Athlete leadership groups.</p> <p>Sharing visions.</p> <p>The importance of culture.</p> <p>Developing inter-organisational relationships.</p> <p>Emotional intelligence.</p> <p>Encouraging, inspiring and motivating others.</p> <p>Cultivating positive training/learning environments.</p>

Table 4: Approaches used to encourage dialogical learning through yarns and conversations.

Strategies	Examples
Collective	Coaches investigated topics together through meaningful discussions.
Reciprocal	Coaches listened to each other, shared their ideas, and considered alternative points of view.
Supportive	Coaches felt safe to express their ideas openly and freely.
Cumulative	Coaches used conversations to progressively establish common understandings.
Purposeful	Coaches discussed topics with specific outcomes in mind.



Groups and timings

The following Tables show when the online catch-ups have been held, along with the names of the people who have participated in the program and shaped its development. It should be noted that the learning groups were formed based on information obtained as part of the registration process including times and days of availability self-nominated by the coaches.

Table 5: Overview of the first cohort of Summit coaches that came together in November 2021 and explored personally identified topics of interests on a fortnightly and then monthly basis. Importantly, nine of the eleven coaches (now affectionately known as the old timers) from the three groups are still with the program and shaping the way it is experienced.

Learning Group 1 Monday afternoons 15:00 - 16:30 Facilitated by Neil and Paul	Learning Group 2 Wednesday afternoons 15:30 – 17:00 Facilitated by Neil and Paul	Learning Group 3 Thursday mornings 11:00 – 12:30 Facilitated by Neil and Paul
Louise Sauvage (Para-athletics)	Myriam Fox (Canoe-kayak slalom)	Stacey Marinkovich (Netball)
Tim Decker (Cycling)	Alois Rosario (Para-table tennis)	Belinda Stowell (Sailing)
Peter McNeil (Freestyle mogul skiing)	Rohan Taylor (Swimming)	Adrian Hinchliffe (Diving)
	Brad Tutton (Beach volleyball)	Colin Batch (Hockey)

Table 6: Overview of the second cohort of coaches who joined the program in February 2022 and made an extremely valuable contribution to the overall design and direction of the program. It's worth noting that five of the coaches from this cohort are still participating in the program and (with the help of the other “old timers” and a group of “newcomers”) have created a series of self-organising and hierarchy-free learning spaces.

Learning Group 4 Monday afternoons 12:00 – 13:30 Facilitated by Paul	Learning Group 5 Wednesday afternoons 13:30 – 15:00 Facilitated by Paul	Learning Group 6 Thursday mornings 09:30 – 11:00 Facilitated by Paul
Jenny Duncalf (Squash)	Krisztina Szedlak (Artistic swimming)	Mark Prater (Rowing)
Karen Murphy (Lawn bowls)	Joshua Fabian (Gymnastic)	Euan Mcnicol (Sailing)
Anthony Potter (Hockey)	Ricci Cheah (Para-archery)	Simon Naismith (Volleyball)
Brad Ness (Wheelchair basketball)	Michael Crisp (Surfing)	



Table 7: Overview of the third cohort of coaches (the newcomers) who commenced their learning journeys with the program in June 2023 and have been sharing tips and trends with each other ever since.

Learning Group 7	Learning Group 8
Monday evenings 18:00 – 19:30 Facilitated by Bill and Paul	Tuesdays Various times Facilitated by Alan and Paul
Tracey Menzies-Stegbauer (Swimming) Dan Atkins (Triathlon) Gene Bates (Cycling) Mathew Helm (Diving) Mike Barber (Athletics)	Ellen Randell (Rowing) Michael Blackburn (Sailing) Rob Hammond (Hockey) Laing Harrow (Softball) Jimmy Owens (Paddle)

Table 8: Summary of the online sessions and the amount of data they have produced. Data for 2022 relate to engagements with cohorts 1 and 2, while for 2023 that number was generated by the people outlined in Figure 3. The amount of unstructured text-based data is that recorded by me.

Key Information	2022	2023
Number of online sessions.	59	47
Number of online discussion hours.	88.5	70.5
Number of two-day face-to-face gatherings.	1 two-day event (Alice Springs)	1 two-day event (Brisbane)
Amount of unstructured text-based data generated through regular online catch-ups and discussions (field notes, journal entries, contact logs, and observational data).	32,518 words 125 journal entries	46,974 words 197 journal entries
Total:	106 online sessions. 159 hours of online discussions. 2 face-to-face learning events. 79,492 words and 322 journal entries.	



Current structure

Since its inception, the program has been evolving in ways advocated by the coaches themselves whilst also fostering a sense of connection [41]. The Figure below aims to illustrate this point by demonstrating how the program's current interconnected and socially constructed relationships are supporting and encouraging the coaches and social learning leaders in terms of their respective learning, development, health, and well-being [41-43]. By conceptualising the program this way, it is possible to see how the different learning groups that make up this shared endeavour are not isolated entities focused only on localised practices and solutions, but critical elements of a broader interrelated sociocultural system that are dependent on each other for the scalability of learning across an entire [landscapes of practice](#) (HP coach development) [42,43].



Figure 3: Visual representation of the current mode of operation that aims to show how the relationships and interactions (that have emerged through spontaneous and self-organising ways) are not only shaping the direction of the program, but assisting with the scalability of learning across the Australian HP coaching landscape of practice.



Key learnings

General outline

The key learnings from the project are presented below. The information covers all aspects of the two-year experience and is intended to highlight the fact that at all times throughout the life of the project I was focused on informed iteration of the program and its capacity to promote a culture of continuous improvement.

Lesson 1: Coordinating the project required a variety of skills and involved many responsibilities

There was a general consensus amongst the implementation team (including me) that there was merit in having a dedicated person overseeing the work and, as can be seen below, the role involved a variety of tasks and many responsibilities.

Table 9: Overview of the different roles I perform during my time as the project coordinator/community convenor, and of the perceived skills and attributes that the coaches and members of the implementation team kindly attributed to me during a retrospective analysis of the program.

Tasks	Skills and attributes
<p>Defined concept.</p> <p>Consulted with key stakeholders.</p> <p>Established project team.</p> <p>Reviewed relevant literature and undertook other scoping activities to show that the program was feasible, practicable and assessable.</p> <p>Used data to demonstrate a need and want for the program.</p> <p>Developed a comprehensive project plan and set of operational procedures outlining a clear understanding of the requirements.</p> <p>Created monitoring and evaluation strategies.</p> <p>Designated roles and responsibilities.</p> <p>Developed feedback loops to share insights and accelerate project development.</p> <p>Created an underpinning philosophy and set of guiding principles.</p> <p>Framed the work as a participatory action research project.</p>	<p>Excellent communication, problem-solving, and time management skills.</p> <p>Highly developed report writing skills.</p> <p>Effective multi-tasking.</p> <p>High degree of passion and creativity.</p> <p>Willingness to take calculated risks in accomplishing implementation goals.</p> <p>Ability to cultivate productive and collaborative relationships.</p> <p>Strong stakeholder engagement skills.</p> <p>Ability to identify knowledge gaps and implement practical solutions.</p> <p>Thorough understanding of deductive, inductive and abductive reasoning and how these different processes can be used to draw conclusions, make predictions, or construct explanations.</p> <p>Ability and willingness to accurately document, record and share experiences.</p>



Lesson 2: The use of First Nations methods was very well received

Another key finding from the project was the high receptiveness of the coaches and social learning leaders to use techniques drawn from the traditions of Australian Indigenous people to support the generation of new knowledge and create a sense of belonging. The list below summarises the First Nations methods that together produced important project outcomes.

- Making use of information-sharing circles, storytelling, and yarning (informal discussions) to generate new practical wisdom and actionable knowledge.
- Acknowledging and leveraging existing skills, experiences, knowledge, and expertise to enhance capabilities and capacities.
- Adhering to cultural protocols.
- Honouring kinship (interactional obligations).
- Creating and sharing artifacts and other social gifts.
- Practising Indigenous ways of [ways of knowing and learning](#).



Figure 4: A beautiful and inspiring piece of art called [Kinship](#) that was painted by [Brad Hore OLY](#) and commissioned by the Australian Sports Commission as part of its ongoing commitment to reconciliation. For me, the artwork is also a timely reminder that “[sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action](#)” - [Peter Senge](#).



Lesson 3: A flexible format was important

Due to the coaches' extremely busy schedules and because they are engulfed in time-demanding careers, the program offered a flexible and accommodating approach to participation, and this was appreciated. According to the coaches, the less-structured approach offered several advantages including that it enabled continued participation in the program whilst working overseas and faced with difficulties relating to time zones. The benefits of flexible online delivery, however, extend beyond mere convenience and represents a significant evolution in the way HP coaches are able to learn, grow and connect with each other. This is particularly important when you consider the extensive travel coaches at this end of the spectrum undertake each year and the amount of time they spend away from home [44,45]. Letting coaches determine their own level of engagement and frequency of participation are examples of how the Summit program attempted to address this challenge, and feedback from participants suggests that (in most cases) it was successful in encouraging and enabling interactions to take place in ways and at times when they were needed the most.



Figure 5: Photo by [Sigmund](#) intended to highlight how the recent escalation and uptake of video communication technologies for educational purposes is opening up new opportunities for connecting coaches with one another and with relevant external expertise. This could encourage even greater dialogue between people with different perspectives and prove to be a major aid in supporting the development of 21st century coaches through the cultivation and use of interprofessional [Virtual Communities of Practice \(VCoP\)](#).



Lesson 4: Welcoming, safe and non-judgmental environments were vital

Providing coaches with friendly, safe, welcoming, supportive, and non-judgemental environments was a key feature of the program and its importance was discussed many times over the two-year period. The emergence of this finding is compatible with the literature on “psychological safety” - the degree to which individuals feel comfortable taking positive interpersonal risks (such as trying something new) [46]. According to Edmondson & Lei [47] and Merritt et al. [48], welcoming and supportive environments often promote a sense of psychological safety by encouraging people to engage in ways that align with their personal motivations, which in turn, enables the co-construction of meaningful and productive experiences and, importantly, a sense of empowerment within their environments. This is important in the present case because research [46-49] shows that when individuals feel a sense of psychological safety, they are more likely to demonstrate such self-regulated strategies as engaging in learning opportunities, admitting and learning from mistakes, providing feedback to others, sharing suggestions, and helping others with similar tasks. In my opinion, these strategies were repeatably displayed by the coaches and social learning leaders over the two-year period.

Lesson 5: The social learning leaders played crucial roles

The ability of the social learning leaders (Belinda, Neil, Bill, and Alan) to optimise the learning process and foster a culture of collaboration was crucial to the program's success and this was another key learning from the project. They not only brought the groups together, but also created the conditions that encouraged and promoted both creativity and freedoms of thought through inspiring coach-led discussions and consensus-building actions. The following, based on my observations of these highly talented people, summarises what I believe were their common traits:

- They made everyone feel welcomed, wanted and valued.
- They were excellent at managing group dynamics.
- They had credibility as HP coaches and leaders.
- They didn't pretend to have all the answers, or to know everything.
- They provided constructive feedback when required and acted as sounding boards for new ideas.
- They brought people into conversations and knew when to bring discussions to a close or let them continue.
- They set aside their personal opinions and encouraged coaches to make their own choices and decisions.
- They were extremely passionate.
- They promoted solution-focused behaviour.
- They were seen as influencers of success.
- They were sensitive to the needs of each individual as well as the chemistry of the groups.
- They maintained positive and professional demeanour and modelled the behaviours that were being sought.



Lesson 6: Self-determined learning was required

The ability and willingness of the Summit coaches to take substantial responsibility for their own learning cannot be overstated and (in my opinion) is one of most important findings from the project. This autonomously led approach to the attainment of knowledge is referred to as “heutagogy” [50,51] and can be thought of as one end of a learning continuum, with pedagogy (teachers/instructors in control) at the other end and andragogy (control is shared) positioned somewhere in between [52]. Accordingly, important self-directed practices of learning are firmly embedded within the process that aims to produce “learners who are well-prepared for the complexities of today’s workplace” [50, p: 56] by placing “control of, what will be learnt, when it will be learnt and how it will be learnt in the hands of the learner” [53, p:3]. Importantly, heutagogy is perhaps the best fit for the Summit program, as it offers a practical framework to describe how the coaches are pursuing a particular form of learning in an attempt to make a difference to something they are deeply passionate about (HP coaching) by setting objectives, understanding what resources are required, developing and applying the appropriate strategies, reflecting upon the learning processes, refining practices, and evaluating outcomes with or without the help of outsiders. The illustration below is a visual representation of this dynamic process and is intended to show how an ability to construct highly personal and largely self-determined learning journeys encourages competency and capability development through regular and ongoing engagement in the following processes [50-53]:

- **Double-loop learning:** Understanding how to learn by challenging underlying assumptions and making sense of the consequences of actions, rather than relying on tried (and not necessarily true) methods [52-54].
- **Critical self-reflection:** Reflecting upon the effectiveness of current problem-solving processes and the ways they can influence personal beliefs and future actions [55,56].

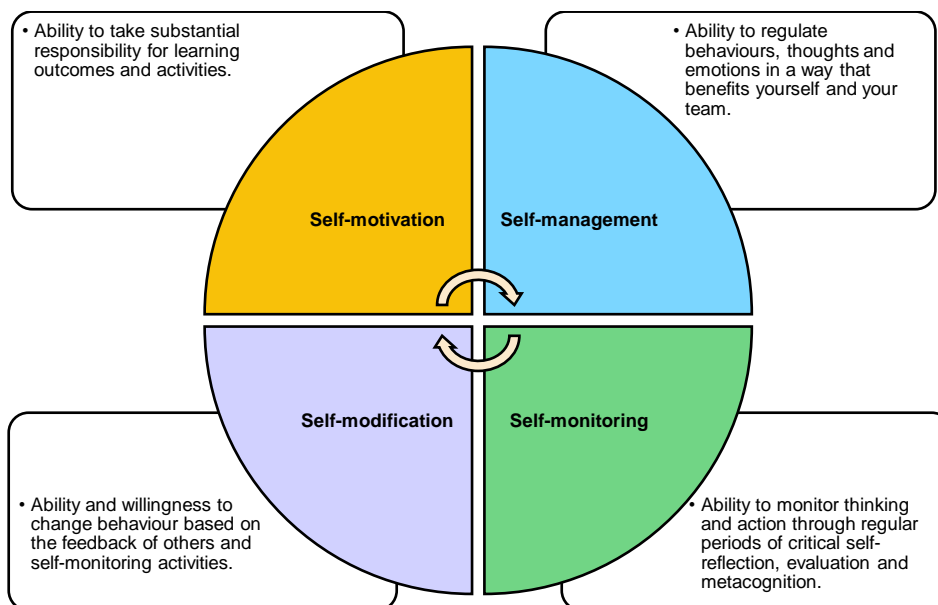


Figure 6: Simplistic illustration showing how many of the coaches from the program were able to determine their learning needs, monitor their performance, achieve their goals and measure their success without the help of others through the use of pre-existing metacognitive skills and an ability to transform critical pieces of information into new thoughts, behaviour and solutions [50-54].



Lesson 7: A sense of community was vital

Coaches made it clear that belonging to a special community was a key feature of the program and topics such as “connecting”, “coming together”, “kinship”, and “relationships” were repeatedly discussed. This key finding is consistent with research showing that people are more likely to stay involved in an initiative when they feel they belong, and when that initiative makes them feel valued and accepted [57-59]. This transfer of feelings and emotions is referred to as a Sense of Community (SoC) [59-61]. Feedback from evaluations, along with personal conversations and active involvement in the program over a two-year period suggests a vast majority of participants (the coaches, social learning leaders and me) experienced this transfer of feelings.

Lesson 8: The program’s benefits extended beyond coach learning

Whilst the Summit program was primarily focused on supporting, encouraging, and assisting the coaches with their learning journeys, documented evidence suggests that participation in the program also contributed to the overall health and well-being of its members. This is a key learning from the project and one that requires further attention, since studies have shown that regular participation in supportive and encouraging environments can yield a range of benefits, such as:

- Improved positive physiological responses, including cardiovascular reactivity to both anticipated and existing stressors [62].
- Immune, endocrine, and cardiovascular function benefits [63].
- Reduction in allostatic loads - the cumulative wear and tear on the body due to adapting to adverse physical or psychosocial situations [64].
- Promotion of psychological well-being by fostering a sense of relatedness and giving purpose to a person’s life [65,66].

Unfortunately, there is also compelling evidence linking a lack of engagement in such environments to a host of negative health conditions, including development and progression of cardiovascular disease, high blood pressure, recurrent myocardial infarction, and impaired immune function [67,68].

While the above makes it clear that providing coaches with highly positive and rewarding experiences is not only imperative for the promotion of continuous learning opportunities and the overall health and wellbeing of group members, it also demonstrates that the retention of social and professional connectedness after involvement with the program requires further consideration. Initial thoughts on ways this could be done include having the coaches:

- Attend regular online and face-to-face “keep in touch” days.
- Continue receiving email correspondence aimed at supporting professional development.
- Assist with the running of other programs and initiatives.
- Utilise friendships formed through the program to support any group member encountering professional and/or personal problems.



Lesson 9: The program has evolved into an open-ended learning event

One of the most interesting and rewarding parts of my role was seeing the program evolve from an initial six-month pilot project to an open-ended learning event that has no end date, no specified number of sessions, and no final assessments. Whilst this evolution was not originally foreseen, it has been an amazing experience to be part of, and, as can be seen below, it has produced a number of key learnings that could assist with the implementation of other projects.

- The program was and still is being shaped by the people for whom solutions are being sought.
- The initiation of learning processes was driven by people who felt so strongly about a particular focus area (HP coaching) that they were prepared to invest their time and effort in exploring topics about it even when the outcomes and objectives were not completely clear.
- Measures identified during the initial planning phase were used to track progress.
- Data from multiple sources were used to help shape program improvement.
- Decisions on program progression were informed by a combination of practical experience gained from running the program, continued consultation, and the reading of relevant research literature.
- The practitioner/researcher role provided opportunities for meaningful and continual dialogue with the coaches to the extent that some of them are now considered co-developers of the program.
- The program was implemented in ways that enabled the progressive, holistic identification and resolution of real-world problems through repeated cycles of observation, reflection, planning, action, and evaluation conducted in collaboration with the coaches and other key stakeholders.



Figure 7: Photo by [My Life Through A Lens](#) intended to highlight the importance of collaboration, social learning, and collective intelligence.



Lesson 10: The online experience can be improved

The final lesson I took away from my time with the program comes from the lengthy discussions I had with my great friend and program Elder, Professor Allan Hahn, along with the subsequent reflections on those talks and the reading of pertinent research. These actions have resulted in the following thoughts, which are shared here with a profound sense of service and deep gratitude.

- **10(a): Use existing technology to create a safe and secure online hangout**

Establishing a closed Microsoft Teams channel could enhance the delivery and experience of the program by creating a safe, secure and inclusive online platform that has potential to encourage and promote even higher levels of engagement and streamline administrative tasks.

- **10(b): Provide greater support through use of different delivery methods**

The flexible nature of the program, along with the time pressures experienced by the coaches means that the sharing of content through [synchronous and asynchronous](#) delivery methods is of particular importance and consideration should be given to the points below to help determine if a more effective approach could be achieved.

Table 10: Summary of the pros and cons of synchronous and asynchronous learning methods, highlighting how a [blended](#) approach to content delivery could have real benefits for the program and add an extra dimension to the coaches' experience.

Key points	Synchronous learning	Asynchronous
Definition	Delivers content in real time.	Shares material for self-paced review and consideration.
Pros	<p>It helps build a sense of community.</p> <p>It is convenient.</p> <p>It promotes real-time discussions.</p> <p>It provides immediate feedback.</p> <p>It enables live information exchanges.</p> <p>It encourages spontaneous interactions and discussions.</p>	<p>It has greater flexibility.</p> <p>It uses diverse formats.</p> <p>It extends content review time.</p> <p>It increases accessibility.</p> <p>It promotes reflective behaviour.</p> <p>It enables the sharing of additional information through forums and chats.</p>
Cons	<p>Scheduling is challenging.</p> <p>Technical issues.</p> <p>Accessibility difficulties [69,70].</p>	<p>Reduces interactions.</p> <p>Limits contact time.</p> <p>Requires more commitment from program coordinators, facilitators and participants [69,70].</p>



- **10(c): Use the principles of connectivism to guide the work**

Connectivism is a developing and emerging theory that champions the idea of moving beyond “bricks and mortar thinking” by acknowledging the important role internet technologies such as web browsers, search engines, online forums, social media networks and online communities play in today’s tech-savvy, fast paced and ever-changing world [71-73]. It makes use of established educational theories (e.g., constructivism and network theory) to explain the learning process and uses the concepts of “nodes” and “links” to demonstrate that connections are more important to people than their current state of knowing [71,72].

A node, within this context, refers to any point or source of information and encompasses a range of entities such as people, workplaces, databases, podcasts, webinars, and any other resource capable of generating or processing information. Links, on the other hand, serve as the bridges or relationships that enable information to pass from one node to another and can manifest in various ways including, online forums, social media chats, hyperlinks and reference lists [71-74].

The underpinning principles that guide this emerging theory are summarised below and help to demonstrate how they could aid delivery of the Summit program by highlighting the important roles that expansive networks, connections, diversity, and different opinions play in the knowledge production and transfer processes [72,73].

1. Learning is a process of connecting specialised nodes and information sources.
2. Learning may reside in non-human appliances and applications.
3. Capacity to know more is more critical than what is currently known.
4. Nurturing and maintaining connections is needed to facilitate continual learning.
5. Ability to see connections between fields, ideas and concepts is a key skill.
6. Remaining current is the intent of all connectivist learning activities.
7. Decision-making is itself a learning process. Therefore, choosing what to learn and the meaning of incoming information should be seen through the lens of a shifting reality. For example, while there is a right answer now, it may be wrong tomorrow due to the alterations in the information climate affecting the decision [75].



Concluding comments

Things to consider

- Whilst initially designed to be delivered over a six-month period, the Summit program has become perpetual and is demonstrating what is possible when key personnel from multiple organisations work together to achieve a common goal.
- It is continuously being shaped by the characteristics and interactions of its members and is opening up new possibilities for HP coach learning and development.
- For the above reasons, it is important that the program is not seen as a time-constrained event entailing delivery of predefined content to coaches, but rather as a learning mechanism that can be continually fine-tuned and increasingly more effective in meeting the needs of HP coaches distributed across multiple settings and different locations.
- In order to fully realise the potential of the program, it may be necessary to reposition and reconceptualise Australian HP coach development as occurring within a [Landscape of practice](#) and underpin that work with First Nations methodologies.
- Initial success with use of First Nations methodologies suggests there is merit in such an approach and that the above idea should be further explored.
- There is a need for consideration as to whether extension of the socially based approach employed by the program would raise complexities that could be avoided by reverting to more conventional methods of coach development. A question also arises as to whether greater complexity might be offset by greater effectiveness.
- If a decision is made to build upon the current program, there will need to be appropriate support for the cultivation of additional learning communities. Specific attention will need to be given to:
 - ◆ The development of new social learning leaders.
 - ◆ Enhancement of implementation infrastructure.
 - ◆ Establishment of new methods to measure and report on program impact and efficiency, perhaps including careful identification of value creation stories from the coaches and the people they work with (e.g., athletes, performance directors, other coaches, and CEOs).
 - ◆ Design and development of new resources as new learnings become integrated into practice (e.g., information guides to support the facilitation of sessions and the creation of new programs).



Final remarks

It is worth reiterating that the findings, learnings and key lessons presented in this document are based on my observations, experiences and reflections and should not be considered as necessarily representing the opinions of all the other people involved with the program, or as having horizontal generalisability (i.e., applicability across multiple settings). Instead, they should be seen as having vertical generalisability (contributing to the building of an interpretative theory) [75,76] and readers should consider the extent to which the findings resonate with their own experiences, provide insights into the investigated phenomenon, promote understanding of the coach development process, and relate to existing theories, rather than concentrating primarily on how relevant they might be to other times, settings and people [75-77].

References and further reading

1. Bourdieu, P., & Wacquant, J. D. (1992). *An Invitation to Reflexive Sociology*, Polity Press, Cambridge.
2. Cushion, C., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R., & O'Callaghan, C. (2010). *Coach Learning and Development: A Review of Literature*. Leeds: Sports Coach UK.
3. Perkins, P., & Hahn, A. (2020). Considerations and Suggestions for Design of a Learning and Development Program for Sport Coaches. *Open Journal of Social Sciences*, 8: 457-509.
4. McWilliam, E. (2004). W(h)ither Practitioner Research? *Australian Educational Researcher*, 31(2): 113-126.
5. Campbell, A., & McNamara, O. (2009). Mapping the field of practitioner research, inquiry and professional learning in educational contexts: a review. In: Campbell, A, Groundwater-Smith, S (eds) *Connecting Inquiry and Professional Learning in Education: International Perspectives and Practical Solutions*. London: Routledge.
6. Huot, S. (2014). *Ethnography: Understanding occupation through an examination of culture*. In *Qualitative research methodologies for occupational science and therapy* (p: 84-100). Routledge.
7. Brink, P. J., & Edgecombe, N. (2003). What is becoming of ethnography? *Qualitative Health Research*, 13: 1028-1030.
8. Devine, F., & Heath, S. (1999). *Sociological Research Methods in Context*. New York: Palgrave.
9. Denzin N. (1997). *Interpretive ethnographic practices for the 21st century*. Thousand Oaks, CA: Sage.
10. Reeves, S., Peller, J., Goldman, J., & Kitto, S. (2013). Ethnography in qualitative educational research: AMEE Guide No. 80, *Medical Teacher*, 35:8, e1365-e1379.
11. Cochran-Smith, M., & Lytle, S. (2009). *Inquiry as Stance: Practitioner Research for the Next Generation*. New York: Teachers College Press.
12. Campbell, K. (2013). Why We Need More Practitioner Research: A Response to "A Teacher Educator Uses Action Research to Develop Culturally Conscious Curriculum Planners". *Democracy and Education*, 21, Article 7.



13. DeLyser, D. (2001) "Do You Really Live Here?" Thoughts on Insider Research. *Geographical Review*, 91: 441-453.
14. Stringer, E. (1999). *Action Research*. 2nd Edition, Sage Publications, Thousand Oaks.
15. Kemmis, S., & McTaggart, R. (2000). Participatory Action Research. In: Denzin, N.K. and Lincoln, Y.S., Eds., *Handbook of Qualitative Research*, SAGE Publications, Thousand Oaks, 567-595.
16. McTaggart, R. (1991). Principles for Participatory Action Research. *Adult Education*, 41: 168-187.
17. Wacquant, L. (2004). Following Pierre Bourdieu into the field. *Ethnography*, 5(4): 387-414.
18. Elliott, J. (1991). *Action Research for Educational Change*. Open University Press, Buckingham.
19. Leitch, R., & Day, C. (2000). Action Research and Reflective Practice: Towards a Holistic View. *Educational Action Research*, 8: 179-183.
20. Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in Qualitative Research. *Qualitative Health Research*, 11: 522-537.
21. Packer, M. J., & Goicoechea, J. (2000). Sociocultural and Constructivist Theories of Learning: Ontology, Not Just Epistemology. *Educational Psychologist*, 35: 227-241.
22. Polkinghorne, D. E. (1989). Phenomenological Research Methods. In: Valle, R.S. and Halling, S., Eds., *Existential-Phenomenological Perspectives in Psychology*, Springer US, Boston, 41-60.
23. Tsekeris, C. (2012). Advances in Reflexive Sociology: Theory, Agency and Dialogical Inquiry. *Italian Sociological Review*, 2(2): 66-75.
24. Bourdieu, P. (2004). *Science of science and reflexivity*. Palo Alto, CA: Stanford University Press.
25. Gilgun, J. F. (2008). Lived Experience, Reflexivity, and Research on Perpetrators of Interpersonal Violence. *Qualitative Social Work*, 7(2): 181-197.
26. Markham, A. (Feb 28, 2017). Reflexivity: Some techniques for interpretive researchers. Available from: <https://annetmarkham.com/2017/02/reflexivity-for-interpretive-researchers/>
27. Francisco M. Olmos-Vega, Renée E. Stalmeijer, Lara Varpio & Renate Kahlke . (2023). A practical guide to reflexivity in qualitative research: AMEE Guide No. 149, *Medical Teacher*, 45(3): 241-251.
28. Charmaz, K. (2014). *Constructing grounded theory: a practical guide through qualitative analysis*. London: SAGE.
29. Koopman, W. J., Watling, C. J., & LaDonna, K. A. (2020, Nov). Autoethnography as a Strategy for Engaging in Reflexivity. *Global Qualitative Nursing Research*. 19; 7:2333393620970508.
30. Dowling, M. (2006). Approaches to reflexivity in qualitative research. *Nurse Researcher*, 13(3): 7-21.
31. Walsh, R. (2003). The methods of reflexivity. *Humanist Psychologist*, 31(4): 51-66.
32. Aguilera, J. L. (1981). Insider research: An ethnography of a debate. In D. A. Messerschmidt (Ed.), *Anthropologists at home in North America* (pp. 15-26). New York, NY: Cambridge University Press.



33. Galdas, P. (2017). Revisiting Bias in Qualitative Research: Reflections on Its Relationship With Funding and Impact. *International Journal of Qualitative Methods*, 16: 1-2.
34. Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
35. Lincoln, Y. S., & Guba E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Evaluation: a publication of the American Evaluation Association*, (30): 73–84.
36. Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal*, 29: 75-92.
37. Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in Qualitative Research *Qualitative Health Research*, 11(4): 522 - 537.
38. Hussain, A., Trudel, P., Patrick, T., & Rossi, A. (2012). Reflections on a novel coach education program: A narrative analysis. *International Journal of Sports Science and Coaching*, 7(2): 227-240.
39. Moon, J. (2001). Reflection in higher education learning. [PDP Working Paper 4]. York: Higher Education Academy, LTSN Generic Centre.
40. Zhu, J., Wang, X. Q., He, X., Hu, Y. Y., Li, F., Liu, M. F., & Ye, B. (2019). Affective and Cognitive Empathy in Pre-teachers With Strong or Weak Professional Identity: An ERP Study. *Frontiers in Human Neuroscience*, 13: 175.
41. Perkins, P. (2022). Evaluation of the AIS Coach Summit Program (Technical Report). Australian Institute of Sport.
42. Wenger-Trayner, E., & Wenger-Trayner, B. (2020). Learning to Make a Difference. In *Learning to Make a Difference: Value Creation in Social Learning Spaces*. Cambridge: Cambridge University Press.
43. Pyrko, I., Dörfler, V., & Eden, C. (2019). Communities of practice in landscapes of practice. *Management Learning*, 50(4): 482-499.
44. Bentzen, M., Kenttä, G., Richter, A., & Lemyre, P. N. (Sep. 2020). Impact of Job Insecurity on Psychological Well-and Ill-Being among High Performance Coaches. *International Journal of Environmental Research and Public Health*, 17(19): 6939.
45. Lefebvre, J., Martin, L., Côté, J., & Cowburn, I. (2019). Investigating the Process Through Which National Hockey League Player Development Coaches 'Develop' Athletes: An Exploratory Qualitative Analysis. *Journal of Applied Sport Psychology*.
46. Wanless, S. B. (2016) The Role of Psychological Safety in Human Development. *Research in Human Development*, 13: 6-14.
47. Edmondson, A. C., & Lei, Z. (2014). Psychological Safety: The History, Renaissance, and Future of an Inter-Personal Construct. *Annual Review of Organizational Psychology and Organizational Behavior*, 1: 23-43.



48. Merritt, E. G., Wanless, S. B., Rimm-Kaufman, S. E., Cameron, C., & Peugh, J. L. (2012). The Contribution of Teachers' Emotional Support to Children's Social Behaviors and Self-Regulatory Skills in First Grade. *School Psychology Review*, 41: 141-159.
49. Holley, L. C., & Steiner, S. (2005). Safe Space: Student Perspectives on Classroom Environment. *Journal of Social Work Education*, 41: 49-64.
50. Blaschke, L. M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *The International Review of Research in Open and Distributed Learning*, 13: 56–71.
51. Blaschke, L. M., & Hase, S. (2019). Heutagogy and digital media networks: Setting students on the path to lifelong learning. *Pacific Journal of Technology Enhanced Learning*, 1(1): 1–14.
52. Luckin, R., Clarke, W., Garnett, F., Whitworth, A., Akass, J., Cook, J., & Robertson, J. (2011). Learner-generated contexts: A framework to support the effective use of technology to support learning. In M. J. W. Lee, & C. McLoughlin (Eds.), *Web 2.0-based e-learning: Applying social informatics for tertiary teaching* (pp. 70-84). New York, NY: Information Science Reference.
53. Stoszkowski, J., & Collins, D. (2017). Nirvana or Never-Never Land: Does Heutagogy have a Place in Coach Development? *International Sport Coaching Journal*, 4(3): 353-358.
54. Hase, S. (2009). Heutagogy and e-learning in the workplace: Some challenges and opportunities. *Impact: Journal of Applied Research in Workplace E-learning*, 1(1): 43-52.
55. Schön, D. (1983). *The Reflective Practitioner: How Professionals Think in Action*. London: Temple Smith.
56. Gibbs, G. (1988). *Learning by Doing: A Guide to Teaching and Learning Methods*. Further Education Unit. Oxford: Oxford Polytechnic.
57. Puddifoot, J. E. (1994). Community Identity and Sense of Belonging in a Northeastern English Town. *The Journal of Social Psychology*, 134: 601-608.
58. Bollen, K. A., & Hoyle, R. H. (1990). Perceived Cohesion: A Conceptual and Empirical Examination. *Social Forces*, 69: 479-504.
59. Mcmillian, D. W., & Chavis, D. M. (1986). Sense of Community: A Definition and Theory. *Journal of Community Psychology*, 14: 6-23.
60. Clopton, A. W. (2007). Predicting a Sense of Community amongst Students from the Presence of Intercollegiate Athletics: What Roles Do Gender and BCS-Affiliation Play in the Relationship? *The SMART Journal*, 4: 95-110.
61. Warner, S., Dixon, M. A., & Chalip, L. C. (2012). The Impact of Formal versus Informal Sport: Mapping the Differences in Sense of Community. *Journal of Community Psychology*, 40: 983-1003.
62. Glynn, L. M., Christenfeld, N., & Gerin, W. (1999). Gender, Social Support, and Cardiovascular Responses to Stress. *Psychosomatic Medicine*, 61: 234-242.



63. Uchino B. N. (2006). Social Support and Health: A Review of Physiological Processes Potentially Underlying Links to Disease Outcomes. *Journal of Behavioral Medicine*, 29: 377-387.
64. McEwen, B. S. (2000). Allostasis and Allostatic Load: Implications for Neuropsychopharmacology. *Neuropsychopharmacology*, 22: 108-124.
65. Cohen, S. (2004). Social Relationships and Health. *American Psychologist*, 59: 676-684.
66. Thoits, P. (1995). Stress, Coping, and Social Support Processes: Where Are We? What Next? *Journal of Health and Social Behavior*, 35: 53-79.
67. Hudson, B. R. (2017). Lack of Social Connectedness and Its Consequences. *Public Policy & Aging Report*, 27: 121-123.
68. Ertel, K. A., Glymour, M. M., & Berkman, L. F. (2009). Social Networks and Health: A Life Course Perspective Integrating Observational and Experimental Evidence. *Journal of Social and Personal Relationships*, 26: 73-92.
69. Cheung, W.S., Hew, K.F., & Ng, C.S. (2008). Toward an Understanding of Why Students Contribute in Asynchronous Online Discussions. *Journal of Educational Computing Research*, 38: 29-50.
70. Ogbonna, C. G., Ibezim, N. E., & Obi, C. A. (2019). Synchronous versus asynchronous e-learning in teaching word processing: An experimental approach. *South African Journal of Education*. 39: 1–15.
71. Kop, R. (2011). The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course. *International Review of Research in Open and Distance Learning*, 12(3): 19-3.
72. Siemens, G. (2008). Learning and knowing in networks: Changing roles for educators and designers. Presented to ITFORUM for Discussion.
73. Downes, S. (2010). New technology supporting informal learning. *Journal of Emerging Technologies in Web Intelligence*, 2(1): 27–33.
74. Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*. 2(1).
75. Stephens, M. (1982). A question of generalisability. *Theory and Research in Social Education* 9: 75–86. Cited in: Johnson, J. L. (1997). *Generalizability in Qualitative Research: Excavating the Discourse*. In *Completing a Qualitative Project: Details and Dialogue*; Morse, J. M., Ed.; Sage: Thousand Oaks, CA, USA, 1997; pp: 191–208.
76. Kearney, M. H. (2001). Levels and applications of qualitative research evidence. *Research in Nursing and Health*, 24: 145-153.
77. Krauss, S. E., (2005). Research paradigms and meaning making: A primer. *The qualitative report*, 10(4): 758-770.





[AIS.gov.au](https://ais.gov.au)



@theAIS #theAIS

Leverrier Street Bruce ACT 2617
PO Box 176 Belconnen ACT 2616
+61 2 6214 1111