Original Research

A formative and utilization-focused evaluation of assessment efficacy in Special Olympics coach education programmes across the Asia Pacific region

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ABSTRACT

Research has shown that sports participation positively impacts the social development of people with Intellectual Disabilities. Sports Coaches play a vital role in fostering social change through sports programs organised by Special Olympics, but evidence supporting effective coach learning strategies are absent. A formative and utilization-focused evaluation was employed to examine the potential of assessment efficacy through the lens Bernstein's (1971) theoretical framework of three message systems. Five Special Olympics coach developers shared their perspectives through focus group interviews. Five principles of good assessment reflect their perspectives on the potential of assessment efficacy to enhance coach learning. These are: Assessment as a fluid and ongoing process; based on what a coach values the most; coaching practice in the context; with input from other coaches; and informed by transparent success criteria. Principles of good assessment provide guidance to Special Olympics coach educators and aim to encourage discussion about the potential value of assessment efficacy to coach learning.

INTRODUCTION

According to Special Olympics, a workforce of over 30,000 coaches facilitates sports programming for more than 300,000 athletes with Intellectual Disabilities (ID) across the Asia Pacific region (see Special Olympics Asia Pacific, 2021). Special Olympics recognizes multiple coaching roles that meet the demands of a diverse athlete population and numerous types of sports programming. Strategies to prepare coaches for each coaching role are captured in Special Olympics' coach education framework, which includes a three-staged formal coaching pathway consistent with the International Sports Coaching Framework (ICCE et al., 2012). The coaching roles in this pathway are Sports Assistant, Coach Assistant, and Coach (see Special Olympics, 2025a). Despite an emerging body of research exploring coaching practice and coach learning in a disability sports coaching context (e.g. McMaster et al., 2012; Fairhurst et al., 2017; Townsend et al., 2022), the evidence bases for exploring coaching practice and coach learning in Special Olympics context is weak (MacDonald et al., 2016; Pires et al., 2021). More specific research is needed to understand the effects of current coach education strategies on coach learning in the Special Olympics context. This research project aimed to explore the potential of assessment efficacy to enhance coach learning in Special Olympics formal coach education programmes through the lens of Bernstein's (1971) theoretical framework of three message systems of education. The project involved a formative and utilisation-focused evaluation (Patton, 2011) in evaluating the interplay between the three message systems (curriculum, pedagogy, and assessment) and their effects on coach learning. Research findings were used to propose a set of principles of good assessment for future use. Principles of good assessment, in this view, are seen as a tool to support and complement coach learning: What we do *with* coaches rather than something we do *to* coaches.

Coaching as a Vehicle for Creating Social Change

Coaching in a disability sports context has received increased attention from scholars, governments, and sport governing bodies since the United Nations Convention on the Rights of Persons with Disabilities (see United Nations, 2006) actively encourages sports participation of persons

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with disabilities (McConkey et al., 2021). Historically, physically and mentally disabled populations have faced structural social discrimination and exclusion from mainstream activities, such as participation in sports (DePauw & Gavron, 2005). Special Olympics, the world's largest sports organisation for people with Intellectual Disabilities (ID), aims to bridge this gap and uses sports as a vehicle to promote social inclusion of intellectually disabled populations through year-round training and competition opportunities in 33 Olympic-type summer and winter sports (McConkey et al., 2021; see Special Olympics, 2025b). Research has shown that participation in sports creates a positive impact on the lives of people with ID and contributes to improved health and mental well-being (Crawford et al., 2015), increased self-esteem (Burns & Watts, 2012), as well as social development and enhanced adaptive functioning (Cybulski et al., 2016).

Sports coaches play a central role in creating positive changes through sports. Sports coaching is widely recognized as necessary societally, regardless of changes focused on improved performance, enhanced physical and mental well-being, or social development (North, 2017). The International Council for Coaching Excellence. (ICCE et al., 2012) defines sports coaching as "a process of guided improvement and development in a single sport at identifiable stages of athlete development" (p.10) and highlights the universal scope of coaching (worldwide) to service multiple populations (e.g. youth, adults, disabled) across a range of coaching contexts (e.g. community, professional, education). The success of Special Olympics, in particular the ongoing delivery of sports programming that fosters social change, largely depends on developing a workforce with skilled and knowledgeable coaches who understand how to create the conditions for inclusion and social change (Hassan & Lynch, 2014; Townsend & Peacham, 2021; Townsend et al., 2022). However, limited research specifically exploring Special Olympics' coaching context reflects critical implications for implementing and developing a coherent coach learning framework. An analysis of demographic information of Special Olympics coaches collected by Huntley et al., (2021) shows a global coaching workforce comprised of mainly volunteers with diverse coaching biographies, and who are driven by the ideals associated with promoting social inclusion of vulnerable populations. Huntley et al., (2021) highlights the serendipitous entry of coaches into Special Olympics, which is often inspired by relationships with families of athletes with ID, through volunteer programs in educational institutions or sports clubs, or work-related demands (e.g. special needs teachers seeking training for sports coaching roles). Furthermore, Huntley et al. (2021) reveals a pattern consistent with findings from research on the broader parasport coaching literature. Approximately 50% of the sampled coaches had engaged in specific training to coach athletes with ID. However, concerns about the absence of particular disability coaching and assessment standards were raised. Coach education programs in a disability sports context tend to present a high degree of mainstream content (able-bodied) and often overlook coaching problems related explicitly to disabilities (Fairhurst et al., 2017; Cushion et al., 2020; Townsend et al., 2022).

This lack of contextual clarity indicates why disability sports coaching courses have generally been perceived as practically irrelevant by coaches operating in a disability sports context (McMaster et al., 2012; Tawse et al., 2016; MacDonald et al., 2016). Townsend et al. (2015) suggest that developing relevant coaching knowledge begins with understanding how disability is socially constructed and presents four angles (medical, social, social-relational, and human rights) through which to explore implications for effective coaching practice and coach learning. A lack of understanding of how disability is socially constructed and perceived within societies leads to coaching practices that maximise symbolic value rather than creating social change through meaningful participation in sports (Townsend et al., 2015; Cushion et al., 2020). Coach learning is fundamental to developing coaching practice in a disability sports context (Townsend et al., 2022). In addition, coaching as a vehicle for social change represents coaching practice that blends social development with improving sporting performance (Townsend et al., 2015; Townsend & Peacham, 2021). Therefore, an evaluation of coach learning in Special Olympics context is needed to understand what is included in coach learning curricula, the pedagogical strategies used to deliver the curriculum and how acquired skills and knowledge are assessed.

Exploring Assessment Efficacy

The sports coaching literature typically categorises coach learning as formal, non-formal or informal (Nelson et el., 2006; Mallet et al., 2009). In the context of this research and consistent with Nelson et al.'s (2006) description, Special Olympics' three-staged coaching pathway reflects characteristics of formal learning as learning is institutionalised and supervised, requiring trainee coaches to demonstrate pre-determined knowledge to obtain a recognized coaching certification. However, formal coach education pathways have been criticised for being prescriptive and ignoring coaches' learning preferences and desired knowledge (Piggott, 2012; McQuade & Nash, 2015). Research examining the effects of formal learning on coaching practice has highlighted the need to position the coach at the core of the learning process, balancing required

and preferred sources of knowledge, and recognize prior learning experience by blending formal with informal ways of learning to optimise knowledge acquisition (Erickson et al., 2008; Mallet et al., 2009; Nelson et al., 2013). Non-formal learning involves any educational activity outside the formal learning framework (e.g. workshops or coaching clinics), and informal learning happens through exposure to multiple learning environments. Knowledge acquired through informal learning reflects prior life- and coaching experience (Nelson et al., 2006).

Assessment forms an integral part of formal coach education programs and typically determines coaches' readiness to undertake their roles and responsibilities (Hay et al., 2012; McCarthy et al., 2021b). However, where the effects of formal learning and pedagogy on coaching practice have dominated sports coaching research thus far, the contribution of assessment to coach learning and coaching practice remained unexplored (Hay et al., 2012; McCarthy et al., 2021a). Drawing on Bernstein's (1971) theoretical framework of three message systems of education as a reference point for exploring the potential of assessment to coach learning, Hay et al. (2012) argue that assessment communicates *what* is taught by employing the curriculum, *how* it is taught through pedagogy, and the *value* this creates for the learner. Assessment, in this view, is seen as a mechanism to assign value to coaches in the form of recognition of coaching knowledge as a prerequisite for certification (Hay et al., 2012, p.189). Fundamental to this process is coherence between the three message systems. For example, Penney et al. (2009) showed that misalignment of message systems reduces the effectiveness of each of the message systems and thus, affects achieving intended learning goals. Assessment, in its simplest form, involves collecting information to make judgements. To optimise the value of information and strategic alignment with the other message systems, Hay et al. (2012) propose four conditions of assessment efficacy: 1) *Learning-oriented assessment* provides feedback that informs future learning requirements and promotes the development of desired knowledge and skills. 2) *Authentic assessment* is concerned with assessing obtained knowledge and skills in the context wherein they will be used. 3) *Assessment validity* concerns the collection, interpretation, and judgements of information used to make informed assessment decisions, as well as what consequences this might have for future actions. 4) *Socially Just* assessment aims to ensure equal opportunities to engage with assessment and that learners understand how judgements are made. Hay et al.'s (2012) conditions of assessment efficacy provide a starting point for exploring the potential of assessment efficacy to coach learning. In particular, what can be done to ensure coaches see the value of assessment, where assessment should be situated, when assessment is considered valid, what type of assessment feedback can be integrated into coaching practice, and how can feedback stimulate reflective practice (Gilbert et al., 2012).

A Formative and Utilisation-Focused Approach

The introduction of large-scale, formal coach education programs in the broader sports industry has changed coach education into a means to increase the numbers of certified coaches through standardised curricula and blended delivery strategies aimed at meeting a growing demand for recognition of knowledge in the form of certification (Duffy et al., 2011; McCarthy et al., 2021b). The effectiveness of Special Olympics' formal coach education framework has yet to be evaluated. However, it is known that Special Olympics coaches typically engage with formal learning through the Special Olympics Online Learning Portal and sports-specific coaching practicums (see Special Olympics, 2025a). Online coaching modules offer standardised curricula where knowledge is assessed through quizzes and an exam at the end of each module. A 100% score is required to pass the exam and obtain a certificate of completion.

Evaluating the effectiveness of sports-specific coaching practicums is problematic due to the decentralised delivery of coaching practicums. It is assumed that coaching practicums delivered by Special Olympics country programs are practitioner-designed with limited theoretical guidance and function based on program-specific needs and implicit goals. Evaluating practitioner-designed coach education programs based on implicit goals requires a model of inquiry with direct involvement from key stakeholders. A theory of program evaluation that facilitates this process is utilisation-focused evaluation. Utilisation-focused evaluation is designed based on the principle that assessment is judged by its usefulness to its stakeholders in a particular context (Patton, 2011). Research on evaluation has shown that direct involvement from stakeholders in program evaluation enhances their understanding of the purpose. In addition, it creates a sense of ownership among stakeholders; therefore, stakeholders will more likely be willing to engage with the conclusions and action plans (Patton, 2008). Stakeholders in this process are defined as 'intended users', and program usefulness is defined as the 'intended use'. As such, utilisation-focused evaluation is concerned with evaluating an intended use of a program or specific practice with its intended users. The role of the evaluator in this context differs from more classical ways of program evaluation, which tend to be evaluator-centred (Patton, 2008). Instead, evaluators conducting utilisation-focused evaluations act as facilitators and assist intended

users with reflecting on a program's intended use, e.g. whether programs have achieved what was planned.

According to Patton (2008), two essential responsibilities of the evaluator include identifying and personally engaging intended users at the beginning of the evaluation and ensuring both organisational and personal readiness. Building rapport and trust with and among intended users is essential for achieving consensus throughout the evaluation process. Secondly, evaluators are responsible for ensuring that the evaluation outcomes inform decisions made throughout the evaluation process. Utilisation-focused evaluation fits multiple research designs and can be summative or formative (Patton, 2011). Summative evaluations judge performance based on predefined performance goals within a set timeframe. In contrast, formative evaluations focus on enhancing or improving programs without judging their effectiveness (Patton, 2011). Instead, formative evaluations are improvement-oriented and aim to collect information about a program's strengths and weaknesses to continuously seek quality improvements and optimise the effects of interventions within programs (Patton, 2008).

A relevant example of a formative and evaluation-focused evaluation in the coaching literature is Driska (2018), who evaluated the effectiveness of USA swimming's nationwide online coach education program: *Foundations of Coaching.* The research aimed to generate data on the program's performance, its frequency of use by coaches and the effects of online learning on coaching practice. Key program decision-makers were initially involved in an elicitation phase to identify the intended uses of the evaluation. These included an examination of General Course Perceptions and effects on Coaching Knowledge, Attitudes, and Behaviours. A sample of 21 coaches who had completed the program was then interviewed to examine how the course was perceived and how it had influenced their coaching knowledge, attitudes, and behaviour. The evaluation revealed the program performed effectively but also informed the program decision makers about variations in the effects on coaching ability. Driska (2018) suggests that utilisation-focused evaluation can be beneficial when evaluating programs or specific program practices designed based on coach developers' practical experience. Therefore, this research adopts a formative and utilisation-focused approach to answer two research questions: How are coaches assessed in Special Olympics coaching practicums across the Asia Pacific region, and how does that impact coach learning?

METHODS

Participant Selection

Interpretative qualitative methodologies are commonly used in sports coaching research. It connects observers with real-world environments to collect and interpret information provided by people operating in these environments, and make sense of the complexities dominating these environments (Smith & Sparks, 2016). In line with utilization-focused evaluation, direct involvement from coach developers was required to evaluate assessment efficacy and pave the way for developing of a set of principles of good assessment. Given the short time frame for completion, the study explored the relationships between curriculum development, pedagogy, and assessment practices with a select group of coach developers for the two largest Special Olympics sports: Athletics and Football. According to Sandelowski (1995), sample needs to be small enough to manage data collection and analysis, and large enough to provide rich and detailed information. As such, a small sample of coach developers was preferred. After ethical approval from the General University Ethics Panel was obtained, National Sports Directors of twelve Special Olympics country programs were invited emailed an invitation to nominate participants who met the inclusion criteria. These were: 1) Recognised as an athletics or football coach developer by a Special Olympics country program, 2) prior involvement in delivering at least two Special Olympics coach education programmes in their sport, and 3) hold a formal coaching accreditation. Given my interest in understanding the relationship between curriculum development, pedagogy, and assessment practices in athletics and football coach development programmes, as well as involving the participants in developing a set of principles of good assessment, purposive sampling (Smith, 2010) was used to select participants who met the inclusion criteria. Five participants were selected, and their participation was confirmed by email with a signed participation information sheet and consent form.

One participant volunteered as an athletics coach and coach developer with a local Special Olympics program. One participant was affiliated with a partner organisation that delivered regionwide football coaching practicums, and one was a professional athletics coach developer with a background in lecturing and physical education. All participants were male, ranging from 32 – 51 years old. The participants represented 22 years of coach development experience with local Special Olympics programs.

Data Collection

Consistent with interpretive qualitative research literature (e.g. Nelson et al., 2014; Smith & Sparks, 2016), semi-structured interviews were selected as the data collection method. Given the intention to gather and understand multiple perspectives about one topic within a short timeframe, focus group interviews were considered the most efficient data collection tool (Smith, 2010). Focus group interviews have a degree of spontaneousness and prompt discussion based on contributions from others, which allows for the collection of rich information (Sim & Waterfield, 2019). As such, the interviewer acted as a facilitator and collected data emerging from both dialogues and discussions.

A semi-structured interview guide was developed based on Bernstein's (1971) theoretical framework of three message systems and divided into two parts: The first part aimed to elicit participants' initial views on efficacious assessment and evaluate current assessment practices during a first focus group interview. The interview questions invited participants to share their perspectives on the effects of coach learning based on curriculum development, pedagogical strategies, and assessment practices. The second section of the interview guide included questions aimed at validating the data collected during the first focus group interview. Bringing in Hay et al.'s (2012) conditions for efficacious assessment as a general point of reference aimed to prompt a discussion leading to developing a set of assessment principles the participants considered relevant and valuable. All participants were informed of their identity and any data collected or used in the final result remained confidential. Participants were given a pseudonym, e.g. participant 1, in the data reporting. Focus group interviews were video recorded using Microsoft Teams. Five focus group interviews were conducted, ranging from 2 – 4 participants and typically lasted between 30 -55 minutes.

Data Analysis

Using Bernstein's (1971) theoretical framework to provide a general sense of direction to the data collection and interpretation, a sensitising approach was used (Patton, 1990). First, video-recorded interviews were transcribed verbatim and generated 2,239 lines of single-space text. Next, data were content analysed line-by-line (Patton, 1990), using initial open coding (Taylor, 2014) to identify and cluster keywords, phrases, and quotes representing participants' perspectives on current assessment practices and future directions. This process was repeated twice and resulted in 57 preliminary codes. In doing so, keywords had to be mentioned twice to be considered relevant for the analysis. Axial coding (Taylor, 2014) was then used to categorise the preliminary code units into 13 lower-order themes. Next, lower-order themes were grouped into four higher-order themes, reflecting the key factors influencing assessment practices based on the participants' input. Finally, a framework summarising the preliminary codes, representative quotes, and the lower- and higher-order themes were shared with all participants by email and presented to the participants for validation in the second focus group interview (Nelson et al., 2014). All the participants acknowledged the framework accurately summarised and reflected what had been discussed during the first focus group interview. No edits were made. The high-order themes were then used to discuss, develop, and formulate a set of principles of good assessment, which reflected the views of all participants and were considered relevant and valuable for future use.

Quality of Research

Consistent with Smith et al.'s (2014) criteria to judge the trustworthiness, rigour, and relevance of the research, transparency was ensured by sharing a thorough explanation of the research project before and during the data collection and analysis processes. The participation information sheet covered the research objectives, inclusion criteria, methods, procedures, and data protection policies. Uniform with the utilisation-focused evaluation literature (Patton, 2011), the preliminary findings that emerged from the analysis were shared with the participants for validation. This allowed them to question results and request clarifications. It also allowed the interviewer to reflect and elaborate on the interpretation of data, and representative quotes shared by the participants (Nelson et al., 2014; Smith & Sparks, 2016). The research aimed to evaluate assessment practices in an underexplored coaching context and contributes to literature concerned with examining disability sports coaching practices. Detailed descriptions and representative quotes are provided, reflecting participants' perspectives on existing coach education practices combined with suggested areas of improvement, justifying the worthiness and width of the research. A substantive contribution is made by proposing a set of principles of good assessment that serves a more comprehensive, regional use and aims to prompt discussion and reflection on how efficacious assessment can enhance coach learning in the Special Olympics context.

FINDINGS

The participants evaluated current assessment practices based on their experiences and participated in discussions to assess their effectiveness in coaching learning. As a result, four higher-order themes emerged from the analysis, reflecting the critical factors considered foundational for efficacious assessment. These are contextual understanding, learning environment, coaching knowledge, and consistent practices. Each higher-order theme comprises lower-order themes, which categorised the participants' perspectives. The higher-order and lower-order themes are shown in Table 1. The numbers cited next to each theme correspond with the number of participants referring to the themes. The following section describes each of the higher-order themes in more detail.

Contextual Understanding

This theme captures the context wherein Special Olympics sports programs and coaching take place, and focuses on understanding the social norms and values, the desired impact of coaching, and the complexities coaches deal with due to the stigmatisation of people with ID. The lower-order themes Understanding Disability, Inclusive Coaching Practice, and Role of The Coach reflect the most influential factors related to contextual understanding.

Understanding Disability

All participants highlighted that understanding different types and gradations of ID is essential to effectively coach athletes with ID. In particular, creating an understanding of how limited cognitive abilities and adaptive behaviour require coaches to adapt their practice design and coaching based on different ability levels and needs. For example, participant 3 said, “for me, it's the ability to adapt your session based on the needs of the athletes, just like in mainstream sport, you do the same thing but in adapted form to make it easier to understand.” Participant 1 was more direct in his approach by saying, "without understanding Intellectual Disabilities, you can't become a Special Olympics coach. You will need to know who you are coaching, what they [athletes] can and cannot do."

Inclusive Coaching Practice

Inclusive coaching practice relates to promoting social inclusion and the social nature of the coaching context. Most participants explained the term inclusive as "sports being accessible to anyone, regardless of ability, age, gender and race.” Participating in meaningful involvement was seen as an essential aspect of inclusive coaching. Participant 1 explained that "each coach should know how to group athletes based on their ability level to maximise their learning experience and joy.” Meaningful involvement from this perspective is seen as creating an equal playing field based on gender, age, and ability. Inclusive coaching practice was generally assessed based on the coaches' ability to design and deliver drills where everybody gets to participate. Participant 4, when referring to managing new coaches' expectations, said, "I am taking the sharp edges away, slowing them down a bit. Most coaches join Special Olympics because they think it is about winning. It is not. It's about doing something meaningful, that is making sure each athlete is involved.” Participant 5 mentioned that the concept of inclusive coaching practice was not yet established in every country by saying, "inclusive coaching is very new in [my country]. We are experimenting and learning on the way. I think we just need 2-3 years to pilot inclusive coaching courses to understand the impact", which indicates that this concept is still emerging in the broader disability sports community.

Table 1 breaks down the 4 higher order themes in lower order themes that emerged from the data analysis and reflect the critical factors considered foundational for efficacious assessment. The preliminary themes capture the participants' perceptions of the lower order themes and were used to develop the principles of good assessment.

Higher order Themes	Lower-order themes	Preliminary themes
Contextual Understanding	Understanding Disability (5)	Understanding different levels of disability (5) Understanding athletes' needs (5) Managing limitations (4) Preparing coaches for the *who* they coach (5)
	Inclusive Coaching Practice (4)	Coaching to create social impact (4) Understanding social inclusion (5) Creating equal opportunities (4) Fostering meaningful involvement (5)
	Role of the Coach (4)	More than a Coach (4) Agent of social change (4) A teacher of sports (5) Shaping the coaching process (2)
Learning Environment	Coaches Biography (5)	Prior experience requires different approaches (5) Existing coaching knowledge (4) Coaching Philosophy (3)
		Pre-course assessment (4) Special Olympics coaching pathway (3)
	Connection to Movement (4)	Diverse workforce (3) Motivations to coach (4) Coaching intentions (3) Contextual fit (4) Suitability (4)
	Learning Strategies (4)	Learning through interaction with peers (4) Depends on what coaches want to learn (3) Adult Learning Principles (4)
	Desired Outcomes (4)	Develop own coaching style (4) Develop confidence in coaching (5) Ability to create a personal toolbox (2) Depends on coaching role and environment (4)
Coaching Knowledge	Professional Knowledge (5)	Sports specific knowledge (2) Special Olympics sports principles (4) Coaching methodology (3) Key skills: adaptability, patience, safeguarding (5) Ability to teach and coach (5) Equipment requirements (3)
	Interpersonal Knowledge (5)	Ability to communicate with athlete (5)

		Giving feedback to athletes (4) Coaching language (4) Active listening skills (2) Encouraging behaviour (3)
	Intrapersonal Knowledge (5)	Ability to self-assess (4) Plan, do, review (2) Open to feedback (3) Willingness to learn (3)
Consistent Practices	Continuous Process (4)	Fluid and ongoing process (3) Formative vs summative assessment (4) Constantly asking questions: Can they coach? (3) Continued development programmes (4)
	Informed Assessment Decisions (4)	Using workbooks to assess coaches' assignments (4) Checklist to determine whether learners progress (3) Use of video to promote self-assessment (2) Consistent with curriculum (4)
	Framework of Reference (4)	Assessment criteria developed by administrators (4) Programmatic priorities (3) Strategic priorities (3) Reduce bias (3) Course needs to reflect Special Olympics values (4)

Role of The Coach

The role of the coach was frequently explained as being more than a coach. From a practical viewpoint, this could be understood as the coach as a multi-tasker, as Participant 1 explained: "Coaches do everything. They are like teachers, umpires, team managers", and added that this multi-faceted role complicates coach education by saying "it is too much to squeeze into a two-day coaching course, but we have no choice." The term more than a coach also indicates that some coaches consider their role as agents of social change. For example, participant 2 explained, "coaches are more than sports instructors. They usually become friends with athletes and family members. They support athletes beyond the field, like providing food, bringing them home after training or buying them shoes if their family cannot afford it." When inquiring about how shaping the coaching process was reflected in coach education, Participant 3 responded, "We don't actually. I know where you are going, but we are just not there yet." Participant 4 responded similarly by saying, "we have debated this for years, and it is still like a puzzle with a lot of missing pieces. I haven't it figured out myself, to be honest."

Learning Environment

Coach educators should understand the characteristics of the coaches they train. The lower-order themes Coaches Biography, Connection to the Movement, Learning Strategies, and Desired Outcomes cover coaches' backgrounds, motivations, and personal beliefs captured in their coaching philosophies, which helps to understand their values associated with learning.

Coaches Biography

Prior life, learning, and coaching experiences were perceived as positive by most of the participants. Participant 2 said, "especially special needs teachers or family members of athletes understand the coaching context better than anyone else; they pick things up rapidly." However, a coach's biography also comes with challenges. Participant 1, when referring to curriculum design, said, "It is difficult because you never know who you get. We usually make a basic framework and go with the flow." Participant 4 referred to prior knowledge as "coaches are not empty vessels. In terms of their knowledge, we will start a course at different levels and assess at different levels." All the

participants agreed that a pre-course assessment of prior knowledge and coaches' philosophies is a helpful tool for group coaches based on what they already know and want to learn. Participant 3 suggested, "you can't expect everyone to be at the same level, you encourage them to follow the coaching pathway. You're bringing in the values and the role of the coach, and these things are building up to their qualifications." Participant 3 suggested, "A pre-course introduction helps to get to know the people you are dealing with. You could say that this is the first stage of assessment; it helps to create a baseline and understanding their backgrounds, experiences, and knowledge."

Connection to the Movement

Like different biographies, most participants recognized coaches' other connections with Special Olympics, affecting their learning motivations. Links can be categorised as *professional* and *emotional,* according to Participant 5, and he said, "I see parents who want to coach their children, they are emotionally connected. I also see special needs teachers getting certifications because it is part of their job." Participants 2 and 3 had similar views and shared, "everybody joins with different intentions, and my job is to help them prepare them for coaching in the right environment" (Participant 3), and "usually, family members or schoolteachers want to help as an assistant coach. Coaches from mainstream want to be head coach, they want to go to World Games" (Participant 2). Responding to the author's suggestion that coach developers have an essential role in shaping Special Olympics' workforce, Participant 1 said, "yeah, we basically recommend who is a good fit and who's not", and Participant 4 explained, "I always ask myself why is this person here? Where are they at in terms of their coaching? What are their mindset and behaviour like? We need to try and impact on that during days we're working with them."

Learning Strategies

No age-specific entry requirements were reported for coaching practicums, but coaches are generally adults. Therefore, adult learning principles were considered a helpful guide for curriculum development, pedagogical strategies, and assessment. Participant 5 mentioned, "if we ask coaches to understand their athletes, we also need to understand the coaches we train and teach them how they want to be taught." Participant 3 argued that "Special Olympics tends to be very prescriptive when it comes to coaching and learning, like the online modules, they are prescriptive. Practicums should not be prescriptive but allow coaches to learn by doing, by exploring and forming their own opinions." Learning through interaction with peers was frequently mentioned as a preferred method to learn, or as Participant 4 highlighted, "coaching does not happen in isolation so yeah, I really encourage them to work together" and Participant 2 said "I sometimes step back and ask them to assess each other's drills. They seem to be more comfortable with that."

Desired Outcomes

Desired learning outcomes focused on developing authentic coaches and stimulating the development of "their own coaching style" (Participant 4). Participant 1 explained that "a course is an opportunity for coaches to develop something like their toolbox, with the tools they need to coach." Participant 3 explained this "I think the idea of a development program is not to create a robot, a robot system. You know, we produce every one that talks the same, and we all do the same thing." Also, increased confidence was an important outcome. Participant 2 said, "it's all about making sure they feel confident when they coach special athletes." Participant 4 approached desired results through a personal development lens and highlighted that "we aim to train coaches as better persons, who treat special athletes as persons, as members of society. So, we ongoingly reflect on coaches' behaviour: How do they interact with other people?", followed by "essentially, we want coaches to be confident and able to manage a safe environment for vulnerable groups of athletes."

Coaching Knowledge

The author used Côté and Gilbert's (2009) conceptualisation of integrated coaching knowledge and skills to unpack desired coaching knowledge, capturing Professional (sports specific), Interpersonal (relational), and Intrapersonal (self) dimensions of coaching practice.

Professional Knowledge

The participants had different views on whether coaching practicums should focus on developing sports-specific coaching knowledge, or whether this should be a prerequisite for participation so that coaching practicums can concentrate on developing sports-specific expertise in context. Participant 3 said: "Most coaches already have a decent technical foundation; there is no point teaching what they already know." Participant 4 mentioned, "I don't think we should assess sports-specific knowledge; we should assess how they use their knowledge in context." Therefore, professional knowledge acquisition and assessment focused on coaching methodology, particularly teaching skills and practice design. As highlighted by Participant 2, "Teaching and instructing are key skills. Coaches are like teachers; they help athletes learn new skills." When asked what these

essential skills were, "the ability to adapt drills and games, patience, and safeguarding" was mentioned by most of the participants. Participant 1 endorsed this by saying, "safeguarding is incredibly important. I am preparing coaches to work with vulnerable groups." Two other important aspects of professional knowledge were understanding Special Olympics sports principles, such as "Unified Sports and Divisioning", as well as understanding specific competition rules, and equipment requirements."

Interpersonal Knowledge

The ability to communicate effectively with athletes was considered an essential skill. However, participants had different views on what effective communication entails, how it should be reflected in course curricula, or how it should be assessed. Participants 3 and 4 argued that "effective communication reflects coaches' ability to give clear instructions and feedback" and highlighted that "encouragement and the tone of voice" are important. Participant 2 said, "soft skills are so important. Coaches need to learn how to work with special athletes, learning to be patient and not getting angry at them." Participant 3 mentioned that "planning a course starts with inviting athletes to participate; otherwise, we have no reference point for assessment. It's all about simulating that context; otherwise, we are just telling stuff they can't relate to." Participant 5 referred to the limitations of special athletes by saying, "coach educators might not be expert enough to teach or assess this component" and suggested involving subject matter experts – e.g. special needs teachers and parents – in designing course curricula and assessment criteria.

Intrapersonal Knowledge

"The ability to self-assess" was frequently mentioned when discussing how reflective practice could enhance learning. However, most participants added that "most coaches are not used to this." Participant 4 said, "it is a cultural thing. When I deliver courses and I ask coaches what they think, they are either silent or just say what they think I want to hear; that doesn't work." "A willingness to learn" (Participant 1) and "open to feedback" (Participant 2) were considered as starting points for encouraging reflection and self-assessment. Participant 3 said, "I am sure every coach is doing self-assessment, but the question is, what are they doing with it? I promote the concept of plan-do-review to create reflective cycles and integrate their findings into the next practice." According to Participant 5, "self-assessment can only be effective when the coach understands the requirements. So, coach developers need to understand that when they ask coaches to self-assess, they will first have to provide some kind of a reference point for self-assessment."

Consistent Practices

Although all the participants felt their methods were effective, they also acknowledged that they operated based on implicit goals and *what they think works best*, indicating the need for a more structured and consistent coach development, and assessment system. These needs are reflected in the lower-order themes Continuous Process, Informed Assessment Decisions. and Framework of Reference.

Continuous Process

All the participants agreed that coaches' assessment is a fluid and ongoing process. Fluid as "not prescriptive, but flexible" by Participant 3. Participant 4 said, "I guess the assessment and the reflection that we did for coaches would be: How far are we moving them towards our learning goals?" followed by his interpretation of ongoing assessment: "Assessing coaches is a process of constantly asking questions. Are players safe? Did they do risk assessments? Did they plan their session? How was their communication? Was the information consistent with what they're teaching?" Although all participants realised the assessment included summative components, overall, they were convinced that learning should not stop after the final assessment. Participant 1 described, "I think assessment should be part of coaches' learning journey, rather than whether you at a given time and a given location meet a standard." Suggestions for continuous learning and assessment were "creating traineeships or extended practicums before certification" (Participant 3), "Communities of Practice" (Participant 1), and "annual fresh-up courses" (Participant 4).

Informed Assessment Decisions

The most common form of information gathering to make informed assessment decisions was through workbooks (coaches keeping a log) and checklists (coach educators keeping a diary). Participant 4 said, "it's a lot of work when you have 40 coaches, but we ask them to update their workbooks all the time and review these each evening." Participants 2 and 3 used checklists to "keep notes of how they progress (Participant 2) and "it summarises the curriculum and learning outcomes, which helps me to monitor how they progress" (Participant 3). Video recordings were suggested by Participants 1 and 5, highlighting that "videos allow for the most objective

judgement" (Participant 5) and "it allows coaches to self-assess, seeing yourself on screen" (Participant 1). However, most participants mentioned that assessment remains a subjective practice, as Participant 3 explained "that one is the hardest part of assessment. It can change across assessors; if you have one assessor or if you have two assessors, they can assess someone completely different because we all have a personal bias."

Framework of Reference

Most participants felt they had sufficient expertise to develop, deliver, and evaluate the effectiveness of coaching practicums. However, they indicated a need for a standardised framework of reference that communicates minimum standards for assessment and certifications. Participant 4 said, "Assessment can be more objective when administrators develop a standardised framework of reference, with input from coach developers", when seeking ways to reduce bias. Participant 1 highlighted, "I learn new things during each course I deliver. Courses evolve all the time, I think they are getting better each time, but still I am not sure if I am doing the right thing", followed by "everything we do works well, but I don't know if it fits the bigger picture, what Special Olympics wants." Participant 5 suggested that a reference framework should reflect Special Olympics' values and be used as "a guide to inform new coach developers who are not so experienced in this field." Participant 3 suggested, "I think you need principles as to why you're assessing with objective measures tied to each of those principles. So maybe the development process looks different because we have different needs as coaches throughout the journey," and added "we still need to make ourselves better as coaches. So that measurement comes back to a standard measure that you make based on the principles of what you're trying to achieve However, it may just look different."

DISCUSSION

The purpose of the research was to explore the potential of applying a set of principles designed to foster and support efficacious assessment in Special Olympics formal coach education programmes. The three message systems of education framework (Bernstein, 1971) provided a structure for evaluation and discussion. The research project engaged five coach developers from the two largest sports across the Asia Pacific region: Athletics and Football. Although both sports are significantly different (team sport played in multiple formats vs individual sport comprised of various disciplines), the coach developers from both sports shared similar perspectives on coach learning and assessment of coaches in the Special Olympics context. Assessment of coaches was considered a fluid and ongoing process. However, coaches' assessment was also regarded as problematic due to the diverse biographies of coaches and the limited time to develop coaches into a contextual fit for a complex coaching context. The coach developers demonstrated a strong people first approach, meaning they were predominantly concerned with shaping the person rather than the coach. This indicates that assessment largely depends on how the coach developers perceive social behaviour during coaching practicums. However, a framework of reference informing the assessment of desired social behaviour is absent, showing subjectivity and inconsistent practices (North, 2016).

The key themes associated with assessment efficacy were developing a contextual understanding of a unique coaching context and creating a learning environment that meets the learning needs of a diverse coaching population and provide opportunities to acquire relevant coaching knowledge. This message corresponds with Mallet et al.'s (2009) suggestion that effective coach learning requires a blend of formal, non-formal, and informal learning opportunities. Most coach developers preferred pre-program assessments to identify coaches' knowledge, aspirations, and intended learning outcomes. A pre-course evaluation system can potentially enhance learning through curricula and pedagogical approaches tailored to the specific needs and learning objectives of coaches. The evaluation identified a need for a reference framework reflecting the critical themes identified throughout this research and communicating organisational values related to the assessment of coaches. Such a framework is expected to inform consistent practices and reduce bias. However, given the diverse national programs and cultural contexts across the Asia Pacific region, one standardised framework will unlikely serve all the sub-regional needs. Therefore, developing a set of principles of good assessment reflecting the potential of assessment efficacy to enhance coach learning was considered most valuable at this point.

Principles of Good Assessment

Huntley et al.'s (2021) coaching workforce audit shows an adult coaching population. Therefore, the principles of good assessment were informed by the broader adult learning literature (e.g. Knowles et al., 2014). Adult learning strategies focus on problem-based learning and rest upon the social constructivist model (Adams, 2006; Cushion, 2011, p. 57-69). Consistent with the need for contextual clarity among coaches operating in the Special Olympics sports system and the social nature of the coaching process, the principles of good assessment view learning as constructing knowledge in the social reality wherein it will

be used. The role of the coach developer in this context involves creating a real-world learning environment where coaches are encouraged and challenged to solve real-world coaching problems (Cushion, 2011 p. 57-69). This approach discards traditional methods of teacher-centred learning and assessment of observable behaviour. Principles of good assessment, in this view, are seen as a tool to support and complement coach learning: What we do *with* coaches rather than something we do *to* coaches. The following section describes the five principles in more detail.

Assessment as a fluid and ongoing process

Assessment is an ongoing process that does not stop at a particular time. Although most coaching practicums are delivered in a short timeframe (2-3 days on average), assessment activities should be spread attention over the entire duration of the coaching courses instead of focusing on one point of assessment, usually at the end of a coaching course. According to Shepard (2000), assessment should be positioned at the centre of the learning process rather than at the end of learning to gain insights into how learners progress. Programs creating insights about the various stages of development and where learners are during their learning journey add significantly more value to learners than insights generated at the end of their journey (Adams, 2006). An even distribution of assessment activities enhances the potential for the learner to connect with the subjects of assessment (Carless, 2007). Ongoing assessment activities could be using workbooks or diaries to be kept updated throughout coaching courses. However, coach educators could adopt ways of project-based learning and promote developing a portfolio or collaborate in projects with peers to engage with interactive learning, sharing feedback, and self-and peer assessment throughout the programs and towards that inevitable point of the final assessment (Bell, 2010).

Assessment based on what a coach value the most

Formal coach education programs are often criticised for ignoring participants' needs or desired knowledge (Erickson et al., 2008; Piggott, 2012). A wider variety of learning topics and assessment activities can help coaches identify what they value most in coaching and develop personal learning goals. Coach developers should therefore engage with coaches before coaching courses to discuss a personal development plan and, within the boundaries of a framework of reference for assessment, design open-ended learning goals based on what coaches intend to achieve (Shepard, 2000). This principle captures social-constructivist principles and aligns strongly with adult learning principles, such as self-directed learning, recognizing prior learning experience, readiness, and motivations for learning (Knowles et al., 2014).

Assessment of coaching practice in the context

Coaches should be trained and assessed in a real-world context when approaching assessment through a social-constructivist lens (Adams, 2006). This assessment puts the athlete at the core of coaching practice and creates a social reality where coaches are encouraged to solve relevant coaching problems. Research has shown that non-context-specific coaching education programs are irrelevant for coaches (McMaster et al., 2012; Tawse et al., 2016). Ideally, coaching courses are organised with participation from athletes with ID to create a real-world coaching context and a deliberate focus on the *who* they will be coaching. When assessing coaching practice in a real-world context, coaches will have opportunities to practice and receive relevant feedback, gain confidence, and prepare themselves to be ready for the coaching role they will undertake.

Assessment with input from other coaches

Solving coaching problems with peers takes learning and assessment beyond the individual and traditional teacher-learner relationship (McCarthy et al., 2021a). Individuals often struggle to identify their strengths and weaknesses and tend to overestimate themselves when reflecting in isolation (Wolff & Santen, 2017). Assessing coaching practice in collaboration with peers can support self-assessment and stimulate self-reflection. Moreover, by engaging in peer engagement, coaches will not only learn to appreciate the coaching practice of others, but they will also learn to appreciate their coaching practice (Hargreaves, 1997).

Assessment informed by transparent success criteria

A framework of reference, including the critical success factors for assessment and certification, serves as a reference point to evaluate progress made throughout a coaching course. Sharing success criteria before the course ~~starts~~ increases transparency and helps coaches to determine where they are and how they are progressing throughout their learning journey. Moreover, understanding the requirements of successful assessment helps coaches to form a picture of 'what is considered good coaching practice?' allows them to deliver quality assignments (Carless & Chan, 2017). Therefore, developing and sharing the success criteria is a vital responsibility of the coach developer. Success criteria can be flexible in line with assessing coaches based on their value. However, without a framework of reference and success criteria in place, feedback becomes ineffective (North, 2016).

These five principles of good assessment are by no means a definitive set of standards for future coach education practices. Instead, these principles of good assessment reflect the perspectives on assessment as a productive process from coach educators from across the Asia Pacific region. Introducing and promoting the principles ~~and~~ aim to activate a discussion among coach education stakeholders across the wider region about the benefits of efficacious assessment practices.

Limitations of the Research

The research findings represent the perspectives of relatively small sample size and only focus on the two largest sports across the Asia Pacific region. Therefore, it cannot be assumed that the reflections on the potential of efficacious assessment represent the entire coaching population and the multiple sports offered across the Asia Pacific region. Strict inclusion criteria were intended to select participants who could provide rich information about an under-explored topic. The theoretical framework and terminology used to explore the potential of efficacious assessment practices were perceived as complex and required a more detailed explanation in simple language. Multiple time zones across the Asia Pacific complicated data collection through focus groups. Researchers intending to conduct qualitative studies across this region should therefore consider data collection methods focusing on specific sub-regions or collect data from participants individually. Finally, a limited body of research examining coaching practice and coach learning in Special Olympics' context provides a narrow evidence base for comparison or conclusion. This might reflect the lack of organisational readiness of Special Olympics to engage in objective reality testing, which potentially affects participant sampling.

CONCLUSION

Five principles of good assessment reflect the potential of assessment efficacy in Special Olympics coach education programs. These promote assessment as a fluid and ongoing process based on coaches' intended learning outcomes and preferences. Assessment in context creates a real-world reality which encourages collaboration, transparency, objectivity, and validity. As such, assessment supporting learning and not being separate from it proposes a shift in mindset regarding how coach developers view assessment and how it relates to coaches. Assessment, in this view, is seen as a tool to support and complement learning: What we do *with* coaches rather than something we do *to* coaches. The study provides an evaluation framework that could be used in any area of coach learning and development and paves the way for follow-up studies in different Special Olympics regions. The principles of good assessment developed in this study are by no means a standardized set of principles. They encourage discussion and provide guidance to Special Olympics coach educators globally to maximize the value of assessment to coach learning and development in their context.

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