Immediate outcomes and implementation of a sport for development coach education programme in Belize

Paul M. Wright¹, Jennifer M. Jacobs¹, Steven Howell¹, James D. Ressler¹

¹ Northern Illinois University, Department of Kinesiology and Physical Education, USA

Corresponding author email: pwright@niu.edu

ABSTRACT

While sport for development programmes can be found across the globe, there is a gap in the literature describing and evaluating programmes that have been proven successful in Latin America and the Caribbean (LAC). The Belizean Youth Sport Coalition was a two-way coaching exchange project that spanned three years. The goal of this project was to promote positive youth development and social change through sport in the small Central American nation of Belize. The purpose of the current study, which is part of a larger ongoing evaluation, was to assess the immediate outcomes of the education programme provided to 33 youth sport coaches in the first year of the project as well as their subsequent implementation. Multiple data sources indicate the education programme was effective in terms of participants’: (1) satisfaction with the training, (2) content knowledge, (3) attitudes and beliefs, and (4) capacity to implement the contents of the education programme. This study contributes to the sport for development literature by highlighting the important relationship between coach education and programme implementation. Moreover, it contributes to the literature on programmes that have been proven feasible and culturally relevant in the LAC region.

INTRODUCTION

The number of organisations sponsoring Sport for Development and Peace (SDP) programmes around the world has increased steadily in recent decades.¹-³ These programmes vary in their approach and focus. Some are designed to promote cultural exchange and understanding,⁴⁻⁵ while others are meant to foster social change by addressing issues such as violence and drug trafficking.⁶⁻⁷ While such programmes are sponsored on all continents, academic literature describing and evaluating programmes in Latin America and the Caribbean (LAC) remains sparse.⁸ While the treatment of SDP programmes in the LAC region has increased slightly in recent years, this literature remains insufficient given the need and the amount of programming delivered. To this end, the current study describes and evaluates a coach education programme that was part of a larger SDP project recently conducted in Belize.

Formerly British Honduras, Belize gained its independence as a democratic nation in 1981 although it remains connected to the United Kingdom as a member of the Commonwealth. This small nation shares many struggles with its neighbours throughout Central America including high incidences of drug trafficking, interpersonal violence, and gang activity.⁹ However, Belizean culture is also strongly linked to the Caribbean because it is situated on the coast, which includes many small islands, and is framed by a substantial portion of the Meso-American reef. It is the only Central American nation where English is the official language, although Creole and Spanish are commonly spoken. For these reasons, Belize is a particularly interesting cultural context to examine SDP initiatives that may inform others in the LAC region.
Belizean Youth Sport Coalition

The Belizean Youth Sport Coalition (BYSC) project was funded by the U.S. Department of State’s Sports United programme from 2013 to 2016. The goal of the BYSC was to promote positive youth development and social change through youth sport. Due to the small size of Belize, limited infrastructure for youth sport, and lack of capacity in many youth serving organisations, a key strategy in the BYSC was to bring together coaches and administrators from various organisations to form a coalition with a shared mission. The hope was that these organisations could support one another, share expertise, and develop a critical mass sufficient to influence the culture of youth sport programming in Belize.

The BYSC project was guided by the following goals: (1) to increase member organisations’ effectiveness in promoting youth development and social change through sport, (2) to increase coaches’ knowledge, confidence, and skill in using empowerment-based coaching strategies, and (3) to create the capacity within the BYSC to sustain and expand activity after the initial funding period. This training programme was designed to yield outcomes related to participant satisfaction, learning and behaviour as well as institutional changes. The major components of the BYSC project included administrator training to foster organisational change, coach education to influence practice, ongoing consultation to support top-down and bottom-up change, coalition expansion, and the development of sustainable local capacity.

In conversation with the Public Affairs Section of the U.S. Embassy at Belmopan, we recruited a Belizean woman who worked in a youth-focused government department to serve as our In-Country Coordinator (ICC). The ICC’s role was to facilitate logistics and assist, as a cultural insider, with networking, gaining access, and building trust as we approached Belizean organisations about joining the coalition. We initially recruited five organisations to establish the coalition including city government, national government, and non-profit entities that operated youth sport programmes as part of their mission. Once engaged in the project, directors from these five organisations provided further input on the development of the project. One of these directors, in fact, volunteered to take on the role of a cultural advisor for the project. This individual, also a Belizean woman, was uniquely suited to this role as she had been involved in Belizean sport her entire life, including leadership roles. She also lived in the U.S. where she earned a doctoral degree in sport management. Therefore, she was uniquely suited to advise on cultural and contextual differences. Her involvement and buy-in also helped to establish credibility and trust for the American team among Belizean participants.

By the end of the three-year grant, 28 organisations joined the BYSC and sent staff and/or administrators to trainings. Members came from offices and departments in the national government (e.g., Department of Youth Services in Belize’s Ministry of Education, Youth and Sports), city government (e.g., Belize City Council, Youth and Sport Office), higher education (e.g., University of Belize, Athletics), and the non-for-profit sector (e.g., YMCA of Belize). Regarding social issues, representatives from most organisations wanted to address inter-personal violence. For example, they reported wanting to help youth develop the self-control and decision making skills to help them avoid and/or resolve conflict peacefully. Using sport programming as a vehicle to teach such life skills was seen as a feasible way to achieve this by BYSC members.

In total, 129 individuals visited the U.S. for training: 12 administrators; 108 coaches, teachers, and youth workers received coach education; and nine individuals were trained and certified as BYSC coach trainers to serve as local leaders. A more comprehensive description of the project can be seen in Wright and colleagues’ book chapter. An empirical article describing the transformational learning experiences of highly engaged Belizean partners has also recently been published. While these publications and forthcoming studies report on different aspects of the project, the current study specifically examines the education programme delivered to Belizean coaches in the first year and their capacity to implement what they learned.

Teaching Personal and Social Responsibility

The Teaching Personal and Social Responsibility (TPSR) instructional model was a central feature of the coach education programme. TPSR is an empowerment-based approach that was developed in practice for more than 40 years. The model uses sport as a vehicle for teaching values and life skills that can be applied in other settings. The primary goals of the model include taking on more personal (e.g., motivation, persistence, goal setting) and social (e.g., respect for others, peaceful conflict resolution, and leadership) responsibility in the programme setting and then applying these responsible values and behaviours elsewhere, such as in the school, neighbourhood or home.

Numerous studies indicate that well-implemented TPSR programmes create positive learning environments and foster responsibility in the programme setting. These
outcomes have been reported in qualitative evaluations of after-school\textsuperscript{14, 15} and physical education programmes.\textsuperscript{16-18} Spanish researchers conducting quantitative studies have reported improvements in a range of psychosocial variables for TPSR participants as compared to control groups of their peers in quasi-experimental studies. Key variables on these significant improvements were seen among TPSR participants including self-efficacy for self-regulation,\textsuperscript{19} self-regulated learning,\textsuperscript{20} and sportsmanship.\textsuperscript{21} Correlational studies with youth participants have shown personal and social responsibility to be positively and significantly correlated with enjoyment\textsuperscript{22} and intrinsic motivation.\textsuperscript{23}

Although further research is required to better understand and assess the process by which participants transfer learning from TPSR programmes to other areas of life, studies indicate transfer does occur and can lead to improved behaviour and performance in the school setting. In fact, three published program evaluations conducted in large U.S. cities indicate, based on self-reporting, teacher observation, and indicators of school performance (e.g., attendance, disciplinary referrals, homework completion) that many students involved in TPSR after-school programs applied the values and behaviours promoted in the programme to improve their performance in the classroom.\textsuperscript{24-26}

TPSR was originally developed in practice with underserved youth in urban areas of the U.S. However, it has been successfully implemented in many other countries including Spain,\textsuperscript{19, 20} New Zealand,\textsuperscript{27, 28} Canada,\textsuperscript{29} Turkey,\textsuperscript{30} Finland,\textsuperscript{31} and South Korea.\textsuperscript{16} A recent study on the transformational learning experienced by some Belizean leaders in the BYSC project indicated TPSR was perceived as a relevant and acceptable approach to promoting youth development through sport in the Belizean context.\textsuperscript{11} In fact, the TPSR model provides a dual benefit within the context of SDP. Firstly, the coaching strategies that comprise the model can be clearly articulated and shared with local coaches who can apply them in their own coaching.\textsuperscript{32-34} Secondly, the empowerment-based philosophy of TPSR, when applied with the coaches/trainees themselves, can be used to promote transformational learning through reflection on social justice issues and power imbalances.\textsuperscript{35} Such an approach is strongly recommended in SDP initiatives.\textsuperscript{36} In short, TPSR can be both an important feature in the content and the method of coach education in an SDP initiative.\textsuperscript{11, 12}

**Coach Education and Learning Transfer**

It is well documented across fields and cultures that most professional development programmes do not result in meaningful change.\textsuperscript{37, 38} The extent to which a “trainee” transfers the learning into practice is influenced by individual factors related to their ability and motivation as well as environmental factors such as manager/supervisor support alongside workplace norms regarding innovation.\textsuperscript{37, 39} Likewise, in professional development programmes related to personal and social skills, research has shown the strength of implementation is often related to the quality of the training and ongoing support.\textsuperscript{40-42} Similar assertions have been made by scholars in the SDP literature\textsuperscript{43, 44} as well as the field of sport and physical education pedagogy.\textsuperscript{17, 20, 33, 45}

Comprehensive evaluations of SDP initiatives must address coach education programmes. We need to know, for example, whether coach education is delivered well and also if the participants understood the material, were motivated to apply it, and developed the necessary skills.\textsuperscript{41} After achieving immediate training outcomes, it is then necessary to assess implementation in the context of practice to determine the extent to which the training influenced coaching behaviours and supported programme implementation.\textsuperscript{19, 37, 40} Only after a systematic and rigorous assessment of coach training and implementation can we draw inferences about a programme’s effects on youth and communities.\textsuperscript{38, 40, 42}

Despite the importance of coach education in influencing programme implementation and subsequent youth outcomes, this aspect of SDP initiatives is often neglected.\textsuperscript{11, 46} Without seriously evaluating coach education and implementation as well as the relationship between the two, scholars and programme developers are ill-equipped to interpret results related to participant outcomes.\textsuperscript{17} As the corpus of SDP literature grows, there is a need for more explicit evaluation of coach education and implementation to enhance our ability to interpret findings and generate theory. Based on the preceding rationale, the purpose of the current study was to assess the immediate outcomes of the education programme provided to youth sport coaches in the first year of the BYSC project as well as their subsequent implementation.

**METHODS**

This study was part of a comprehensive evaluation of the BYSC that employed mixed methods to evaluate various aspects of the project.\textsuperscript{47} It was reviewed and approved by the Institutional Review Board for research ethics at our university. Our evaluation approach aligned with the notion of utilitarian pragmatism\textsuperscript{48} as it assessed the education
programme relative to its stated goals as evidenced by concrete and practical outcomes. Our approach was also influenced by realistic inquiry because it was designed to meet the needs of a particular programme in a contextualised manner with the data that were available and/or feasible to attain. With this approach we tried not only to determine if the programme was “working”, but for whom and under what circumstances.

Multiple methods were used to assess the coaches’ satisfaction with the training as well as its impact on their knowledge, attitudes and beliefs. Data were collected before, during, and after the training programme. At a four-month follow up, data were gathered to assess how well the education programme had prepared coaches to implement the strategies and best practices it promoted. The evaluation plan and procedures were shared with the ICC and cultural advisor prior to the training so they could comment on instruments and data collection procedures to ensure there was no unintended bias related to personal characteristics such as gender, political affiliation, or local issues unknown to the American team.

Participants and Setting

Participants included 33 Belizean coaches (23 male, 10 female) from organisations that joined the BYSC in the first year. Their average age was 30.52 years old (SD 6.10). Most participants worked in or near Belize City, which is the country’s largest city and is located on the coast. However, some participants travelled from more rural regions farther inland (e.g., bordering Guatemala). All participants spoke English but were of African, Creole, and/or Mayan descent. Participants attended a four-day BYSC coach education programme delivered in March 2014 at a continuing education centre in Belize City. The centre provided a large conference room sufficient for lecture, discussion and demonstration activities. Outdoor space, including a basketball court and open field, were available for demonstration lessons and practical sport activities. These lessons and activities included basketball, soccer, martial arts, physical fitness, and team building. Of these, basketball and soccer were the most commonly played sports in BYSC organisations. However, we believe there was sufficient variety in our examples to demonstrate the concepts and strategies from the training could be applied with any physical activity.

Data collection related to implementation at the four-month follow-up occurred in Belize City in July 2014 when many summer camps were operating throughout the city. Due to the high temperatures, most camp activities took place outdoors in parks, courtyards, playing fields, and a hotel swimming pool. Across multiple site visits and meetings, the first author was able to follow up with 11 of the coaches trained in March, one-third of entire group. Eight of these participants were observed coaching or directing youth programmes.

Overview of Coach Education Programme

Following the recommendations of SDP scholars, we endeavoured to shape the coach education programme with local input. In setting aims for the BYSC at the grant proposal stage, we integrated input from the Public Affairs Section at the U.S. Embassy as well as conversations with several Belizians involved in youth sport programming. At this stage, all parties agreed that it was important to make the training relevant to issues of inter-personal violence. The focus of the project, including the coach education programme, was further refined with input from the first five Belizian delegates who came to the U.S. on an exchange visit in January 2014. For example, these delegates explained that there was virtually no professional development or certification available for youth sport coaches in Belize. Therefore, they encouraged us to integrate fundamental material including how to create a positive motivational climate, coaching for skill development, injury prevention, and effective planning. Even during the four-day training programme, minor adjustments to the planned topics and schedule were made based on participant input. For example, during daily debriefing sessions, participants gave feedback on which topics or modes of practice they thought would be more effective or useful for the following day, such as replacing trainer-led presentations with participant-led action planning at the end of the week.

The training team for the March 2014 coach education included four male professors specialised in physical education and sport pedagogy, the TPSR model, sport-based youth development, and athletic training. The training team also included two consultants (one male, one female) with expertise in the TPSR model, sport psychology, community sport programmes, and sport for development. All members of the training team had extensive practical experience working with youth in their respective fields as well as university and/or professional development teaching experience. The team met prior to the course and debriefed daily throughout to coordinate their efforts, avoid gaps and redundancy across their sessions, and ensure that the curriculum was relevant and responsive to their audience.

The educational programme lasted approximately eight
hours per day. The daily routine involved registration and light breakfast followed by the first morning session, break, second morning session, lunch, first afternoon session, and finally a second afternoon session. Two educational sessions were always run concurrently so the participants could be divided into smaller groups to maximise interaction. In line with the aims of the project, several sessions were devoted to the principles of youth development and specific coaching strategies from the TPSR model. Related to social change, sessions were devoted to action planning, using sport to reclaim public space, and community organizing. Some topic areas were integrated into the curriculum based on input from the first BYSC delegates who visited the U.S. in January 2014.

Some earlier sessions relied more on lectures to introduce terms and concepts related to sport-based youth development and the TPSR model. However, these sessions maximised participant-driven discussion after the initial presentation. Other sessions were more practical in nature, such as a trainer leading a model lesson in order to demonstrate how to integrate leadership roles into a basketball practice. These practical sessions engaged participants actively and culminated in debriefing sessions that provided them with opportunities to ask questions, share insights, and make connections to their own work. By the last two days of the training, sessions became more participant-centred. For example, on the third day, several participants were invited to lead practical sessions to demonstrate their ability to implement specific coaching strategies. On the fourth day, based on participant input, some of the practical sessions were reduced in order to devote more time to action planning. This involved small group discussions and sharing among participants about their hopes for the BYSC initiative, personal goals they wanted to set for applying these concepts, and obstacles they anticipated encountering. One of the final sessions involved a process of peer election among the participants to identify leaders from within the group who would be charged with helping to organise and facilitate communication among participants after the training week.11

**Data Collection**

*Training Feedback Surveys*

Participants completed customised feedback surveys after the second day of training and again at the end of the course. The mid-training version consisted of seven forced-choice items and three open response items. The forced choice items were rated from 1=very dissatisfied to 5=very satisfied and had to do with quality of the training (e.g., quality of training materials and balance of lecture vs. active learning). The open response items asked participants to identify strengths and weaknesses in the training including examples of content they found most applicable to their work. The final version of the survey also contained a section on training quality and another forced choice section in which participants rated the extent to which they felt the training helped them understand key topics. The 19 items in that section were rated from 1=very ineffective to 5=very effective. The final feedback survey ended with three open response items relating to the most and least useful aspects of the training and content that participants were willing to commit to applying in their work. These customised surveys were created jointly by the American training team, the ICC and the cultural advisor. Customised surveys of this type are recognised as an important data source in formative programme evaluations.47 To maximize face validity and content validity, the American team vetted items and crossed them with the training curriculum to ensure that all key learning objectives were represented. To ensure that the required reading level, wording and cultural framing did not present obstacles or biases given the intended audience, the ICC and cultural advisor gave constructive feedback. The finalized surveys were approved by the aforementioned parties and have proven useful in terms of program development and research activities.11, 12

**Self-Efficacy for Teaching Personal and Social Skills**

This validated survey was administered pre- and post-training. Prior to the first session on the first day and after the last formal session of the course, participants completed a self-efficacy survey that asked them to report their feelings of confidence for teaching personal and social skills through sport (e.g., cooperation). This eight-item scale is rated from 1=not confident at all through 10=extremely confident. This scale was drawn from the Exemplary Physical Education Curriculum (EPEC) Self-Efficacy survey.51 This survey’s reliability has been demonstrated by showing satisfactory levels of internal consistency and convergent and content validity.

*Interviews*

In July 2014, the first author returned to Belize to conduct a four-month follow up. The ICC helped to identify BYSC trainees who were implementing summer programmes at that time. Based on access and availability, 11 (8 male, 3 female) participants working in eight different programmes were recruited for interviews. This subsample constituted one-third of the original trainee group. These interviews
were semi-structured and conversational in tone, typically lasting 30 minutes. Main topics addressed included recollections of the March 2014 training experience, description of the current sport programme being delivered, examples of integrating training content into coaching, barriers and facilitators to implementation, as well as recommendations to improve the training programme and ongoing support. Interviews were audio recorded and transcribed verbatim.

**TPSR Implementation Checklist**

This checklist\(^{15}\) has proven useful in documenting which elements of TPSR implementation are seen in practice. In the current study, it was applied in assessing demonstration lessons delivered by the training team and/or participant volunteers in March 2014. The checklist was also used on site visits in July 2014. The checklist is comprised of four sections relating to the core TPSR goals and lesson format as well as common teaching strategies and student behaviours. The teaching strategies include modelling respect, setting expectations, providing opportunities for success, fostering social interaction, assigning management tasks, promoting leadership, giving choices and voices, involving students in assessment, and addressing the transfer of life skills. Key student behaviours include participating, engaging, showing respect, encouraging others, cooperating, helping others, leading, expressing voice, and asking for help. Some of these strategies and behaviours are more common than others so together they represent a range of indicators to describe and assess the extent to which a lesson aligns with the TPSR model.\(^{19, 34}\)

**Field Journals**

The first, third and fourth authors were part of the training team that delivered the coach education programme in March 2014. All three recorded their observations and reflections during the training week. Feedback elicited during informal conversations were also frequently documented in these journals. Generally, entries were made in the evening or morning hours (i.e., before or after training sessions). Entries were made directly into electronic files called field journals. The first author used the same approach when conducting site visits during the summer.

**Artefacts and Documents**

Artefacts and documents were retained throughout the study. Planning documents, correspondence, the original project proposal, as well as handouts and PowerPoint presentations are materials generated prior to the delivery of the coach education programme. Registration and attendance records, video footage and photo documentation are materials that documented the delivery of the training programme. We also retained correspondence with the ICC, reports to the funding agency, and media coverage were generated between March and July. During July, additional video footage and photo documentation was gathered.

**Data Analysis and Trustworthiness**

Regarding quantitative data, analysis began with standard procedures for the initial cleaning and screening of survey data.\(^{52}\) Through this process, it was found that the data were appropriate for inferential statistics. Study constructs scores were created by averaging the items related to the subscale. Descriptive statistics (means and standard deviations) were then calculated to assess both the general effectiveness of the training and how well the training helped the participants understand the topics covered during the training (Table 1). Next, descriptive statistics were calculated and a paired-samples test was conducted to examine changes in participants’ self-efficacy from pre- to post-training (Table 2). Cohen’s \(d\) is presented as a measure of effective size for the t-test conducted. A Cohen’s \(d\) value between .15 and .40 is associated with a small effect, between .40 and .75 with a medium effect, and above .75 with a large effect.\(^{53}\)

Qualitative data were analysed with a combination of deductive and inductive analytic strategies.\(^{54}\) The value of this approach has been promoted in sport-related research\(^{55}\) and has proven useful in previous TPSR programme evaluations.\(^{11, 15, 26}\) Specifically, data were organised using *a priori* codes that attributed units of meaning to key concepts of interest such as satisfaction, learning, attitudes and beliefs, transfer of learning, relevance, application, and the various aspects of the TPSR model. Once data were coded and organised, inductive analysis was undertaken to identify emergent themes and patterns within these broader categories. Higher order themes and subthemes were determined through consensus with all authors. Illustrative quotes were selected to integrate into the narrative based on how well they characterised the meaning of the various subthemes.

Trustworthiness in this evaluation was enhanced using several well established techniques.\(^{47, 56}\) Chief among these were the triangulation of multiple data sources and methods. Member check procedures consisted of debriefing interviews with several leaders in the BYSC to share and discuss the initial interpretations of the research team.
Extensive peer debriefing occurred among the members of the evaluation team throughout the process. Credibility is also enhanced due to our detailed knowledge and direct experience with the project over an extended period of time.

Regarding reflexivity, we were sensitive to imbalances in power. Because members of the American training team were both delivering the program and also conducting the evaluation, they made efforts to create a climate of partnership and minimize this power differential. Specifically, the local voice was prioritized through encouraging honest feedback during structured feedback sessions within the training program as well as through member checking during data collection and analysis. Efforts were also made to establish meaningful relationships with participants in order to foster a sense of mutual respect and openness. The ICC, cultural advisor and other BYSC directors were helpful in assuring participants that their voices were valued and should be heard. Despite these proactive attempts, some participants may have been uncomfortable sharing negative or critical perspectives due to the inherent power differential. Awareness of this potential tension informed our approach to gathering, analysing, and reporting data. The cultural advisor, in particular, was helpful as a critical friend as we discussed our findings and interpretations.

RESULTS

Results are organised as they relate to the following outcome areas: satisfaction, knowledge, attitudes and beliefs, and implementation. In each subsection, the relevant quantitative results are presented first followed by qualitative results.

Satisfaction

The upper portion of Table 1 displays the descriptive statistics from the training feedback survey, which assessed the general effectiveness of the training. All items assessing
the participants’ overall satisfaction with the training were found to be above 4.3 (out of 5), with overall effectiveness of the presenters scoring the highest at 4.92 (out of 5). The positive quantitative ratings were highly consistent with trainer observations and feedback provided throughout the course. Open comments on the feedback surveys coincided with quantitative ratings. Participants were particularly positive about the quality of the training, the relevance of the material, as well as the social and active nature of the sessions. Regarding the quality of the training, one male participant stated, “The sessions are very informative. Instructors are well prepared and have a great knowledge of what they're presenting”. A female participant shared, “I am able to be in the session and understand all the material being introduced to me. I get to participate openly and I feel comfortable with the pace that instructors are moving at”. Another male wrote, “I like that the facilitators are clear in what they're saying and that they use great examples that reflects on their teachings”. Although asked to identify weaknesses and make recommendations to improve the training, few individuals raised concerns. Some participants suggested more materials could have been provided and that more time would have been beneficial, but no strong patterns emerged.

Many participants made comments about the relevance of the content to their context. For example, one male participant said, “All aspects of the training are useful in the work I do from my office and especially on the field”. Apparently referring to debriefing sessions that focused on participants’ real life examples, a female listed one strength as, “When we had open discussions about our different experiences when it comes to the camps”. Another female participant provided a concrete example of how the content would be relevant to a new role she was about to undertake. She stated, “Key points are the drills and warm-up section that I can use in my ball game with my kids as I venture into the coaching of basketball for my first experience with basketball”.

In their feedback, many participants expressed satisfaction with the social and active nature of the learning. For example, a female participant wrote, “I liked the group work which allowed each and every one to be interactive and think of ways to make a sport be fun“. One of her male counterparts observed, “Thus far, I like the group interactions and the information given to me because I'm building my knowledge am gaining a lot of skills that I can implement in youth development”.

Some participants appreciated working as peers with people from different organisations and with people from different areas of their own organisation. One gentleman stated that he appreciated, “Being able to connect with the people you work with of all different levels and how to interact respectfully”.

Knowledge

The lower portion of Table 1 displays the descriptive statistics from the training feedback survey, which assessed how well the training helped the participants understand the topics covered during the training. These items were all found to be above 4.4 (out of 5) with fostering fun and enjoyment scoring the highest at 4.96 (out of 5). These self-reported learning gains were supported by checks for understanding captured on video and reflected in field journals. Eighteen of the 19 topics addressed in Table 1 were mentioned in open comments on feedback surveys. The only topic not mentioned directly was concussion awareness, although general references to sport injury response and prevention were made. The topics mentioned most often were youth development, coaching strategies, and the transfer of life skills.

In their feedback, many participants demonstrated understanding of the material by applying the language and concepts in their responses. For example, one male wrote about the importance of, “Responsibility to model respectful behaviour, e.g., how you treat the kids you work with will reflect how they treat each other”. A female participant explained how she would use certain activities to develop a more positive social climate in her programme, stating:

I've learn to prepare my team to have trust and confidence in each other no matter what the situation is. The skills to create activities for you to learn each other's difference so that they can accept this difference and live in a more peaceful and minded environment for everyone.

Demonstrating his understanding of concepts and how to frame them, one male shared, “I will apply the SMART [specific, measurable, attainable, realistic, time-bound] strategies to help youths make good goals. I will use motivation both extrinsic and intrinsic to help them to complete their goals”. Finally, the transfer of life skills appeared to be a new way to frame an idea that resonated deeply with many of the coaches, which was mentioned frequently. Many coaches also used specific examples to demonstrate their understanding. A female stated, “For me (transferring) applying what you do and learn in sports you can apply those skills in your everyday life (life skill, self-control, and motivation)”. 
Table 1. Descriptive statistics for pre-post self-efficacy items and results of paired-samples t-tests

<table>
<thead>
<tr>
<th>Factor and Items</th>
<th>Pre</th>
<th>Post</th>
<th>Δ</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Efficacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive competition</td>
<td>8.01</td>
<td>9.22</td>
<td>1.21</td>
<td>6.191</td>
<td>1.46</td>
</tr>
<tr>
<td>Self-control</td>
<td>7.28</td>
<td>9.44</td>
<td>2.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best effort</td>
<td>7.33</td>
<td>8.67</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td>8.00</td>
<td>9.11</td>
<td>1.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Following directions</td>
<td>8.28</td>
<td>9.39</td>
<td>1.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compassion</td>
<td>8.17</td>
<td>9.28</td>
<td>1.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>8.06</td>
<td>9.17</td>
<td>1.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect</td>
<td>8.17</td>
<td>9.17</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.83</td>
<td>9.56</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001; n = 18

Attitudes and Beliefs

Table 2 displays the mean variables for all items and the self-efficacy for teaching personal and social skills construct administered at pre- and post-training, as well as change in (Δ) scores. The participants who completed both the pre- and post-training survey (n = 18), on average, perceived their self-efficacy levels for the construct and all items to be above 8.6 (out of 10) upon completion of the training programme, with many of the items above 9.1 (out of 10). All items and the self-efficacy construct showed increases from pre- to post-survey administration. Results of the paired-samples t-test are included in Table 2 along with the related Cohen’s d value. The increase across the self-efficacy construct from pre- to post-survey administration was found to be significant (p < .001, t = 6.191, d = 1.46). Moreover, the two items that saw the largest increase after the orientation training related to constructive competition (Δ = 2.16) and best effort (Δ = 1.34); while the two factors that saw the smallest increase related to respect (Δ = 0.73) and responsibility (Δ = 1.00).

Consistent with increased feelings of self-efficacy, open responses in feedback surveys indicated varied impacts on participants’ beliefs and attitudes. Many demonstrated critical reflection as well as motivation and commitment to the BYSC project. One female participant mentioned increased confidence directly and how that helped her feel empowered as a change agent. She wrote, “One of the most valuable thing that I learnt in this training thus far is building self-confidence within myself. Am sure I can go back within my community to execute what I learned for the past days”. She and many of her counterparts were reflective in their responses. One male indicated the training influenced the way he would view his athletes and his role as a coach, writing:

The most useful aspect of the training were the tools and knowledge given to me to actually connect with the kids we work with on a personal level and understand their personal situations. This will further help me know them better as a person and not just as an athlete who can help me win games.

Regarding the belief that a coalition of youth sport organisations and coaches could make a difference, one male participant wrote:

In Belize, our youth of today and the future needs those strategies to help us as a nation to become better in sports, social life and even on a daily basis. These strategies will help our youth/children to be better learners, respect others people as an individual as well as a culture, which will end up in positive result for us as a small country.

Implementation

During the July 2014 follow-up visit, the first author visited multiple summer camps and conducted interviews with BYSC administrators and coaches. At that point, 20 of the coaches trained in March had the opportunity to apply the content of the training in youth programmes, which included sport-specific camps (e.g., volleyball, basketball, and soccer), swimming lessons, recreational summer camps, a city-wide basketball tournament, an outdoor education camp, and visits to primary school physical education programmes across the country. In total, after four months, trained BYSC coaches had worked directly with 1,184 youth participants. Within their organisations, the BYSC trained coaches had been able to mentor at least 25 new coaches and eight youth leaders. Of course, these outputs do not reflect the extent to which material from the training was actually applied. In an interim report on the project submitted after the July 2014 visit, the first author opined:
My impression is that almost all of the coaches we trained value and support the principles of youth development... Based on my observations and interviews, the most commonly used teaching strategies in BYSC programmes are modelling respect, creating a positive and inclusive environment, planning activities that allow all participants to feel successful, and discussing character or life skills. I saw some brilliant examples of fostering social interaction among students, involving youth leaders in management and instruction tasks, but those were isolated examples and need to be developed more across programmes.

In the following paragraphs, three examples are provided that establish links between the coach education programme and changes in practice.

**Example One**

Two of the coaches that were interviewed and observed were Gabriele and Dale, who both worked for a government-operated sport organisation. In this capacity, they supported sport programmes and to a lesser extent physical education in primary schools during the academic year. Regarding the primary schools, Gabriele reported, “Well, we did most of the primary schools in the district, in the entire [Belize City]; roughly about 10 primary schools”. She and Dale reported that they tried to use strategies from the trainings in these lessons, but struggled because they typically did not know the students and had only one opportunity to teach them. The intent of these visits was to model best practices for classroom teachers charged with teaching physical education. However, as Dale explained, “Most of the time, the teacher leaves and I just be the teacher of the class”. Both reported they were able to implement more of the training content in their summer camps. According to Dale, “We had been working with primary school programmes, but now that the summer programmes have started, we now have the opportunity to work with some of the skills we did in the workshop”. Regarding their coaching in the summer camps, Dale reported, “I know we work on the respect aspect. You know, like, ‘your friend wants to learn too and it’s not just about you’. We try to make sure we get everybody involved”. The first author observed a soccer lesson taught by these two coaches that was consistent with their reports. In fact, during the observed lesson, they integrated an intentional activity to promote communication among the players. While this activity was well-implemented and highlighted new structures the coaches were using to foster life skills, there was little discussion or debriefing with the players about these life skills. In an interview after the lesson, when this point was raised, Dale reflected:

In the camp, when we were doing the specific things to achieve the particular goal of the respect, the leadership, team building, we weren’t doin’ the talkin’ part enough. I gotta be honest, that part we wasn’t stressing a lot, but that’s really what we should be stressing that part because that’s really the important part.

**Example Two**

Another example of the training content being applied was seen in the context of a non-for-profit organisation. This organisation had a strong set of core values and commitment to youth development. Interviews with the programme director and coaches as well as observations made it clear that empowering strategies such as youth leadership were part of the culture of the organisation. In fact, two separate programmes operated by this organisation were observed and in both cases, teenagers who had previously participated in the programme were now serving as assistant coaches. Although such strategies pre-dated the March 2014 training, coaches reported the training had validated their approach and helped them become more intentional and explicit in integrating their core values into activities. One coach, Manny, explained:

Basically, the way the actual training was, was basically hand in hand with what we do. The way we incorporate the actual values into the actual programme is something we were lacking. [The training] gave us the main idea of how we could actually do everything smooth, including the physical and the mental... Sometimes we were doing the physical only, and then the mental afterward, but now I’m at the point where I teach both the physical and mental.

As a senior coach in the programme, Manny explained that he had been stressing this new approach with his peers and the youth coaches. He reported, “telling others they are not just going to teach the sport this year but the core values too”, then added, “It was my main idea for this training for this year...not to only teach the sport but to teach and learn the values of the actual programme”.

**Example Three**

In another government-sponsored programme focused on youth services, a model lesson was observed that integrated life skills education with basketball practice. Through observation and interviewing, it was clear that the coach,
Elijah, was directly applying strategies from the March 2014 training. In a single lesson, Elijah demonstrated all nine of the teaching strategies on the TPSR checklist. As quoted in a previous publication, Elijah explained:

In the previous year, our life skills [instruction] was very poor because we used it in the classroom setting and their attention span is very short. So we started using the TPSR model last year and our life skills turnout was tremendous.

This success was not just a matter of changes in pedagogy, it also required organisational support to rearrange the schedule of the programme and alter the curriculum. As summarised in a field journal:

This year, [Elijah’s programme] are experimenting with teaching life skill lessons through the sport activity (i.e., purposeful drills and activities to highlight conflict resolution and communication skills). All parties involved agree the youth find this approach much more engaging and observe that attendance and retention seem to be improved over previous years.

The examples provided above demonstrate the linkages between training and implementation. These are selected examples of stronger implementation shared for that purpose. It must be noted that other programmes were observed that showed little or no evidence of implementation. Virtually all coaches had positive recollections of the training, but only some had made systematic efforts to apply the material. Some coaches would speak enthusiastically about how much they had changed their approach, but upon direct observation only the most fundamental coaching strategies covered could be seen (e.g., modelling respectful behaviour, including all students, creating a positive climate). It was noted in a field journal in July 2014 how organisational factors were influencing the degree of implementation:

I saw a wide range in terms of the quality of implementation of our training strategies and principles. At the organisational level, I have the impression that some have taken little action to make changes whereas others have taken concrete steps in a relatively short period of time.

Consistent with this last point, some coaches received support to make changes related to scheduling, venue, curriculum, and coaching style. Other coaches met resistance to change in various forms. It is beyond the scope of this study to fully analyse organisational barriers and facilitators, but they did appear to influence implementation.

DISCUSSION

A common goal in coach education is that the training content will be understood, embraced, and implemented by the coaches. However, this basic assumption is often overlooked in personal and social development programmes of all kinds. The current evaluation underscores the key role that training effectiveness plays in motivating and preparing coaches to implement an SFD programme. Specifically, findings presented here indicate the BYSC coach education programme was well-received by participants, increased their understanding of the content and motivated them to apply it. While many external factors influenced implementation, data indicated that much of the learning was retained and applied by a subsample of participants at a four-month follow up.

Participants appeared highly satisfied with the education programme. Both quantitative and qualitative data indicated they felt it was well-organised and effectively delivered. In keeping with recommendations by scholars in the SDP field, we made efforts to shape this educational programme with local input and connections to the local context (e.g., focusing on issues like interpersonal violence and tailoring the programme to participants who had little-to-no previous coach training). Data indicate this approach enhanced the relevance and personal meaning for participants. They also expressed positive feelings about the social and interactive nature of the training, which are often noted as best practices in the training literature.

We agree with Spivak that SDP programmes must provide more than technical and didactic instruction to foster meaningful change. Data presented here and in a previous study indicate that our approach did foster critical reflection and transformational learning. At the same time, some degree of technical and didactic education was required in this case. As there is no system of training or credentialing youth sport coaches in Belize, this educational programme represented an opportunity to introduce fundamental knowledge on a range of topics to participants. Many of these related to the unique aims of the project (e.g., youth development) and others were identified as important foundational knowledge needed by Belizean coaches (e.g., injury prevention). Findings indicate participants understood the information and were able to see meaningful connections to their practice. Concrete learning experiences of this type are necessary if real changes are to be made in the realm of practice.

To make the leap from professional development to changes in practice, participants must see relevance, be motivated to
apply the material, and possess the ability to do so.\textsuperscript{37, 42} Feelings of self-efficacy are known to be a strong predictor of an individual’s ability to execute a skill in practice.\textsuperscript{62} Although the current study was based on a modest sample and lacked a control group, significant increases in self-efficacy for teaching personal and social skills were identified with a strong effect size. This indicator, combined with qualitative feedback, indicates the BYSC coach education programme was effective in increasing participants’ attitudes and beliefs in ways that would support effective implementation.\textsuperscript{37, 41}

Of course, the ultimate test of a training programme’s effectiveness is the participants’ demonstrated ability to implement its content in practice. As reported here, the reach of the BYSC programme at follow up was substantial. Not all 33 participants had the opportunity to implement youth programmes immediately, but those who did worked with 1,184 youth by July 2014. Based on direct contact with one-third of the original participants, data indicated most coaches had positive feelings about the training programme and reported that it influenced their practice. However, a deeper level of scrutiny revealed that the extent to which coaches changed their practice as a result of the training varied. While examining organisational barriers and facilitators in-depth was beyond the scope of the current study, it is clear from the examples provided that these are as important as individual factors influencing implementation.\textsuperscript{37, 39}

Future research should examine organisational barriers and facilitators in more detail to develop recommendations that might facilitate implementation. Still, the findings indicate the programme helped individual coaches develop the capacity and ability to implement essential concepts and strategies. While the SDP literature is replete with programme descriptions and reports of outputs, this study makes a contribution as one of the few that provides an in-depth analysis of the immediate outcomes from a coach education programme and is able to connect them to changes in practice at follow up.\textsuperscript{17, 57}

The current study also contributes to the literature by providing an example of an SDP programme that proved effective in the LAC region. Although Belize is the only English-speaking nation in Central America and has a distinct culture, it shares many features with other Central American countries as well as its Caribbean neighbours. Some features of the BYSC may inform future SDP programming in the region. We found that adopting an approach that involves local expertise and promotes critical reflection\textsuperscript{3, 36} seems to have fostered transformational learning as well as necessary technical and didactic learning.\textsuperscript{59} Regarding the content of the training and our approach working with the participants, the TPSR model appears to have been an effective pedagogy. This model has been successfully applied in many cultural contexts\textsuperscript{16, 19, 28} and the current study adds empirical support to its relevance in the LAC region.

In terms of the evaluation of SDP programmes, there are many calls in the literature for robust evaluation plans that start with training.\textsuperscript{42, 45, 57} The current study used multiple data sources to assess a range of immediate outcomes as well as implementation.\textsuperscript{41, 47} Best practices for assessing professional development and implementation of the TPSR model were employed in this study and appeared to have contributed to the rigor and coherence of the programme.\textsuperscript{17, 32, 33} We recommend that future SDP initiatives that involve coach education integrate strong evaluation plans into their programme. We propose that aligning evaluation measures with the training can enhance programme effectiveness.\textsuperscript{47} Finally, having an expert from the local community such as our cultural advisor to consult on the evaluation design, procedures and interpretations was extremely valuable in terms of respecting local culture, increasing credibility as well as minimizing bias and power differentials.

SDP programmes are practical in nature and idiosyncratic by design. For these reasons, we found a realist inquiry framework to be quite useful, such as focusing on questions that were most relevant to the project and feasible given the access and data we had.\textsuperscript{50} We were not concerned as much with hypothesis testing as answering practical questions such as, “Is this particular programme working?” and “If so, for which participants and under which conditions?”. Nonetheless, there were several limitations in the current design. First, the ability to verify findings was limited by the fact that most data were based in participant perceptions and on self-reporting. Second, even though inferential statistics were used to assess changes in self-efficacy, our ability to attribute the changes to the training programme is limited because there was no control group. Third, despite efforts to involve participants as partners, there was an inherent imbalance of power between them and the Americans who were both delivering and evaluating the programme. Despite efforts to minimise its influence and the fact that the cultural advisor never reported any major problems in this regard, this power dynamic may have impacted participant responses. Fourth, as there is little professional development available to youth sport coaches in Belize, it is possible the strong positive reactions to this programme were influenced by the fact that any such training could be appreciated as a rare and valuable opportunity, regardless of the content.
In closing, the current study describes and reports many positive outcomes stemming from an SDP coach training programme in Belize. Findings indicate the training was sufficient to enable some participants to implement the content in their work with local youth. Future studies should probe more deeply into the organisational factors that influence participants’ ability to transfer what they have learned in SDP programmes. The examples of programme implementation provided in the paper illustrate how much influence is exerted by external and contextual factors. This is especially true in programmes such as the BYSC that attempt to foster both top down and bottom up change. Such programmes must navigate organisational norms, cultural context, and local politics, which will vary by both country and region (e.g., the LAC).

DEDICATION

This article is dedicated to the memory of our dear friend Mr. Phillip Singh of Belize. Phillip was a local advocate for youth sport and a leader within the Belizean Youth Sport Coalition from its inception. His enthusiasm, love for his country, and belief in the power of sport for development inspired us all.

REFERENCES


5. Keim M. Sport as opportunity for community development and peace building in South Africa. Sport and Dev. 2006;97-106.


