Linking physical education with community sport and recreation – A program for adolescent girls

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ABSTRACT

The engagement of adolescent girls in physical activity (PA) is a persistent challenge. School-based PA programs have often met with little success due the lack of linkages between school and community PA settings. The Triple G program aimed to improve PA levels of secondary school girls (12–15y) in regional Victoria, Australia. The program included a school-based physical education (PE) component that uniquely incorporated student-centred teaching and behavioural skill development. The school component was conceptually and practically linked to a community component that emphasised appropriate structures for participation. The program was informed by ethnographic fieldwork to understand the contextual factors that impact on girls' participation in PA. A collaborative intervention design was undertaken to align with PE curriculum and coaching and instructional approaches in community PA settings. The theoretical framework for the intervention was the socio-ecological model which was underpinned by both individual-level (social cognitive theory) and organisational-level (building organisational/community capacity) strategies. The program model provides an innovative conceptual framework for linking school PE with community sport and recreation and may benefit other PA programs seeking to engage adolescent girls. The objective of this paper is to describe program development and the unique theoretical framework and curriculum approaches.

INTRODUCTION

In response to the reported decline in adolescent physical activity (PA) levels, PA promotion interventions have been implemented, mainly in school settings in the US (McKenzie et al., 2004; Pate et al., 2005; Webber et al., 2008) and Europe (De Meester, Van Lenthe, Spittaels, Lien, and De Bourdeaudhuij, 2009). These interventions have focused upon promoting higher levels of PA during Physical Education (PE) and developing behaviour change skills among students to facilitate participation in PA outside of school. Whilst short-term positive changes including increased levels of moderate-to-vigorous PA during PE have resulted (McKenzie, et al., 2004), the programs appear to have had no positive effect on PA levels outside of school (De Meester, et al., 2009; Sallis et al., 1997). As a result of the limited success of school-based PA programs on participation outside of school, multi-component interventions that include both school and community strategies have been suggested to make important and sustainable differences to participants' PA levels (Eime and Payne, 2009; Simon et al., 2006; van Sluijs, McMinn, and Griffin, 2007).

BACKGROUND

Interventions involving both the school and the broader community have been conducted in France with adolescents (i.e. Intervention Centred on Adolescents' PA and Sedentary behaviour: ICAPS) (Simon, et al., 2006), and specifically with adolescent girls in the US (i.e. Trial of Activity for Adolescent Girls: TAAG) (Webber, et al., 2008). Both interventions showed modest improvements in PA, although TAAG only resulted in modest improvements in girls' PA after three years and the improvement was only observed among girls who had been exposed to the intervention during their entire middle school experience (Pate, et al., 2005; Webber, et al., 2008). The authors concluded that that the ability to change behaviour may have been constrained by the expectations and social norms that the adolescent girls learn during the 6th grade year (i.e. transition from elementary to middle

school), implying that the wider socio-cultural environment was a significant factor which influenced the formation of attitudes of adolescent girls towards PA.

Many previous school-based PA programs have tended to focus on implementing active health-related PE such as pedometer challenges and jump rope activities, and have sought to develop class management and instructional skills of the teacher to maximise student PA participation during PE classes (Elder et al., 2007; McKenzie, et al., 2004; Sallis, et al., 1997). The TAAG intervention also incorporated some guidelines on student-centred learning such as maximising the use of modified games in an effort to make PE more relevant and positive for all skill levels (TAAG Steering Committee and Physical Education Working Group, 2008).

Within the PE literature there are debates about the need to change the PE curriculum, pedagogical practices and teaching strategies to meet the needs of students in the 21st century, and in particular the need to incorporate student-centred learning approaches (Penney and Chandler, 2000). Specifically, Penney and Chandler (2000) identified that PE curricula "need to feature less directive, more student centred and individualised teaching that facilitates creative roles in and approaches to learning" (p.84). They highlight that previous initiatives in PE, particularly Teaching Games for Understanding (TGFU), Games Sense and Sport Education models have provided some valuable student-centred learning experiences on which to build, however, relatively little is known about the impact of these initiatives on adolescent girls' PA within the school context and wider community.

While large multi-centre programs such as TAAG can inform the development of intervention trials, there are culturally specific elements that may limit the relevance of their program to countries other than the US. This view is supported by Simon et al. (2006) who noted that effective long term strategies may differ according to age, country, cultural and socio-economic context. Specifically, sport, PE and PA policies and practices in school and

community settings have features that may be substantially different across different countries. A distinctive element of the PA landscape in countries such as Australia is the dominant role of community-based sports clubs that organise community-level sports training, competitions and events and is especially evident in regional and rural Australia (Atherley, 2006; Tonts, 2005). A volunteer network facilitates these active opportunities and they coordinate their efforts through a complex federated model with National and State Sporting Organisations (NSOs and SSOs, respectively) (Hoye and Nicholson, 2010). In the state of Victoria, almost 90% of SSOs had utilised the school setting to deliver sports programs to expose children and youth to their sport; however there were relatively few strategies to link school-based sports programs and local community sporting clubs despite the intended objective to promote community-based sports participation (Eime and Payne, 2009). Many school and community-based programs designed to increase PA of adolescents have met with little success due to inadequate links between these two important settings (Eime and Payne, 2009). These authors (Eime and Payne, 2009) argued that there is a need for innovative approaches to encourage adolescents to maintain their participation in sport; particularly since evidence suggests that as young people progress through early- to mid-adolescence, there are fewer and fewer opportunities to play sport for all but the most able and mature (Kirk, 2005).

The issue of low levels of PA among adolescent girls, the lack of adequate links between school and community settings, and the relatively lack of success of school-based PA programs inspired the development of the Triple G: 'Girls Get Going' program. In brief, Triple G is a school-community linked program aimed at improving the PA levels of adolescent girls living in regional and rural areas of Victoria, Australia. The program was targeted to these areas, as Australians living in regional and remote areas have a higher mortality and burden of disease than those in metropolitan settings (Begg et al., 2007). The

PA programs included the sports of tennis and football (soccer), and lifestyle and recreation-based activities offered by YMCAs. Specifically, the state governing bodies - Tennis Victoria, Football Federation Victoria and YMCA Victoria were involved as industry partners to develop and implement the program.

The Triple G program involved a tailored school-based PE and community sport and recreation program delivered in eight selected schools and their respective local communities. The program consisted of a school curriculum component followed by a community component and each component was conceptually and practically linked. Whilst critique of a multi-activity PE program is acknowledged (Kirk, 2010; Tinning, 2010), this intervention program was designed to specifically incorporate the expertise of both school PE teachers and community sporting coaches and providers, therefore, there was a limit to what could feasibly be offered. With this in mind, the program was designed to modify some of the pedagogical practices that were occurring within the current school curriculum rather than advocate for an entire overhaul of the school PE curriculum. The school curriculum component, therefore, included two six session units (YMCA recreational activities and either tennis or football) which were delivered during PE classes to Year 7, 8 and 9 female students (approximately aged 12 to 15 years of age). The classes were delivered in a collaborative manner by PE teachers and community fitness instructors and sports coaches and were underpinned by student-centred pedagogical approaches and self management strategies. The community-component was offered as a subsequent eight-week program, and was promoted during the school-component. The introduction of community sports coaches and fitness instructors into the school component, along with program resources and training focused on student-centred pedagogy approaches was an innovative feature of the program to promote PA within and outside of school.

PROGRAM INTERVENTION

The Triple G project was a three year study, drawing on a mixed methodology and was undertaken in two distinct phases (Table I). This paper is focused on describing the design of the program (Phase 1).

<Insert Table I about here>

Program Design

Ethnographic Fieldwork

The design of the Triple G program was informed by ethnographic fieldwork which involved conversations with female secondary school students (adolescents) and their PE teachers within the eight intervention school communities, as well as with local community sports club deliverers from tennis and football, and community fitness instructors from YMCA centres. This approach is similar to the development of TAAG and in line with formative research to understand the interests, attributes and needs of people in their community prior to the design and implementation of a program (Gittelsohn et al., 2006).

The ethnographic component of this research used an approach, well-rehearsed approach by ethnographic researchers (Smyth and McInerney, 2011), of 'getting up close' to and seeking to understand the conditions surrounding how girls made decisions about participation in PA. Of necessity, these were not straightforward or linear processes— they were complex and messy. While our approach was not to conduct ethnographies in the pure sense, we employed 'ethnographic' approaches that involved: observing girls in school contexts of PA; having semi-structured conversations with them; and then, representing our observational field notes and transcribed conversations in the form of 'portraits' or extended and edited vignettes. Further, in the style of ethnographers we entered the field cognisant of

the literature and theory around girls and PA, and this helped us develop more informed research questions. Our approach was one of 'dialectical theory building' (Lather, 1986; Smyth, 1998) in that we were examining: (a) the way in which existing theory helps us understand and explain what the girls told us about their lives and experiences as they related to PA; and (b) how the girls' understandings of the way they made decisions about participation in PA, informed, confirmed or caused us to re-focus our initial theoretical presuppositions—and to that extent, this whole approach was a circular or reciprocal process of confirmation, refutation or progressive re-adjustment.

The specific protocols and the manner in which we went about our 'intellectual craft' was described in Smyth et al. (2009) and involved three elements: (1) posing some middle range orienting questions with which to commence conversations with the girls; (2) a process of capturing the conversations and converting them into transcripts—either by means of a fast typist in situ using a laptop (with a back-up digital recording for cross-checking), or a digital recording transcribed post-factum; and (3) a representational approach in which the transcript data and observational field notes were converted into 'portraits' (Lawrence-Lightfoot, 2005).

The ethnographic fieldwork involved conversations with 138 Year 9 and/or Year 10 female students in both group (n=25) and individual settings (n=48) and their PE teachers (n=25) to understand how these girls make decisions about participation in PA, including physical activities in school PE classes and physical activities during leisure time such as sport, recreation and exercise. In addition, interviews were held with community sport and recreation representatives from football, tennis and the YMCA (n=20) across the six communities, in order to understand girls participation in current community-based PA programs and to discuss how a school–community linked PA program might work in the community. It was anticipated that the information collected from the ethnographic component would ensure that the program best reflected the needs and desires of the girls

within the target group. Specifically, the key findings from the ethnographic fieldwork were incorporated into the lesson plans using "intervention icons and concepts" to prompt teachers to consider a range of barriers to PA. For example, concepts included (although not limited to) working collaboratively, consider group composition, and mapping progress.

Collaborative Intervention Design

Following the ethnographic fieldwork a collaborative approach to the intervention design was undertaken to develop and refine the program and specifically to develop the school- and community-focused lesson plans and resources for each of the program units – tennis, football and YMCA. This involved PE academics working with and drawing upon the expertise and lived experiences of sports coaches from Tennis Victoria and Football Federation Victoria and community instructors from YMCA Victoria. A collaborative approach was undertaken to ensure that the school-based component of the program met the current curriculum standards as outlined in the Victorian Essential Learning Standards (VELS), as well as current coaching and pedagogical approaches in community sport and active recreation settings.

Rarely have programs attempted to draw together such a diverse range of expertise to inform PE curriculum with the view of enhancing student learning and motivation for PA. In doing so, this program has uniquely drawn upon, and attempted to mediate some existing tensions between, both teaching and coaching orientations (Green, 2008) to inform curriculum development. While this research project was not conceived as an exercise in mediating competing and divergent ideologies, some important learnings from each philosophic standpoint have been revealed throughout the course of the project and implemented through the curriculum design phase. Further, given our intention to develop

curricula in the areas of tennis, football and fitness and recreation activities by the YMCA to be delivered initially through school-based PE classes, it was important to acknowledge that historically many "PE teachers are inclined towards replicating (because they feel more comfortable with) 'traditional' approaches to 'traditional' curricula" (Green, 2008, p. 209). By its very nature, the collaborative intervention design facilitated a 'rich' and somewhat liberating approach to the development of the Triple G curriculum that aimed to disrupt some taken-for-granted assumptions regarding effective PE teaching.

Theoretical Frameworks Underpinning the Intervention

A theoretical framework was applied to the intervention design to help incorporate the findings of the ethnographic fieldwork into the collaborative intervention design and also to theoretically ground the intervention. It is widely acknowledged that PA behaviour is affected by multiple levels of influence (Sallis and Owen, 2002). The socio-ecological model is commonly used in PA behavioural research to understand the determinants of PA behaviour (Casey, Eime, Payne, and Harvey, 2009; Cleland et al., 2010) and has been applied to PA interventions (Elder, et al., 2007; Stevens et al., 2005). Most notably, the socio-ecological model highlights the interplay of a wide range of factors on an individual's behaviour, including intrapersonal, interpersonal, community, organisational, environmental and policy factors (Sallis and Owen, 2002). The Triple G program, therefore, applied the socio-ecological model as the overarching theoretical framework which was underpinned by several theories and additional frameworks to guide and inform the intervention. These included: social-cognitive theory; capacity building framework; productive pedagogies; and game-sense pedagogy (see Figure I). The physical and policy environment beyond the school community was not addressed in this intervention. Descriptions of each of the theories and how they were incorporated into the intervention are presented and discussed below.

<Insert Figure I about here>

Social Cognitive Theory – Self Management Strategies

Social cognitive theory (SCT) is a learning theory based on the concept that individuals learn behaviour through social experiences and observing behaviour (Bandura, 1986). Several cognitive variables are identified within the SCT as mediators of behaviour change and these include: outcome expectations, behavioural capability, and self-efficacy. Self-efficacy is central to SCT and has been defined as "people's beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives" (Bandura, 1991)(p.257). That is, individuals who have "high self-efficacy about PA would perceive fewer barriers to their PA or be less influenced by them, be more likely to act on their expectations of desirable outcomes of being physically active, and be more likely to enjoy PA" (Dishman et al., 2005, p. 11). Many health and behaviour change programs are based on social cognitive theory and commonly seek to improve perceived levels of self-efficacy by teaching individuals self management strategies such as goal setting, self monitoring, and self-reward to influence behaviour change (Dishman, et al., 2005; Saelens et al., 2000). In particular, self management strategies have been applied to school-based interventions including SPARK (Sallis, et al., 1997), TAAG (Elder, et al., 2007) and LEAP (Ward et al., 2006). Dishman et al. (2005) tested whether self management strategies mediated the relationship between self-efficacy and PA, independently of selected social-cognitive variables such as perceived barriers, outcome expectancy value and enjoyment. They found that self management strategies mediated the association of self-efficacy with PA in 6th and 8th grade girls in the US, and as such, recommended that interventions for adolescent girls specifically target self management strategies that support PA.

The Triple G program incorporated self management strategies to encourage adolescent girls to include PA in their daily lives; and in particular enhance their learning to be independently physically active (Corbin and Lindsey, 1997). Accordingly, the school-component of the program included journal activities which were based on the cognitive and behavioural strategies of Marcus and Forsyth (2003) shown in Table II. The self management journal activities focussed on increasing knowledge, motivation, social support, overcoming barriers, goal setting and developing reward and reminder systems, and were linked to VELS Levels 5 and 6 to help meet the required Health and PE curriculum standards.

<Insert Table II about here>

Capacity Building Framework

Capacity building is contemporary to health promotion practice and involves the development of sustainable skills, structures, resources and commitment to health improvement (NSW Health, 2001). Capacity building strategies can be applied both within programs and across systems to lead to greater capacity of people, organisations and communities to promote health (2001). The capacity building framework developed by New South Wales Health [37] recommends that strategies span five key action areas: organisational development, workforce development, resource allocation, leadership and partnership. Strategies that focused on each of these areas were applied in the Triple G program, to build capacity among PE teachers, football and tennis coaches, and fitness instructors from YMCAs (i.e. the people) to engage adolescent girls in physical activities. Capacity building strategies were also applied to create supportive school and community environments that facilitate the engagement of girls in physical activities (i.e. the

organisations and communities). A description of the capacity building strategies is provided in Table III.

<Insert Table III about here>

Approaches to Curriculum Development – Drawing on the Principles of Productive Pedagogies and Games Sense

Given the various perspectives that were incorporated into the Triple G curriculum development phase, including the findings from the ethnographic fieldwork and the significant research findings from the PE literature, we accepted a social constructionist perspective that "…curriculum is the product of a range of social forces, involving the exercise of power and the selection of particular values and beliefs, and that…curriculum changes through struggles between vying groups" (Kirk, 2010, p. 22). Further, for students to draw relevant links from the work that they are doing inside the classroom, their experiences need to be relevant to the wider socio-political landscape in which they live (Tinning, 2007).

The findings from the ethnographic fieldwork revealed a range of issues linked to the wider socio-cultural context of these girls' lives that impacted on the way that they developed ideas about being physically active. Whilst editorial constraints preclude a detailed examination of each of these factors in this paper, examples reported by participants as significant in shaping their attitudes towards PA had less to do with actually being physically active and more to do with the context in which these activities took place. For example, fractious peer relations and group dynamics that were often hierarchical in nature, along with high levels of surveillance of physical appearance and performance, led to participants with self-reported low levels of perceived skill competence being less likely to engage n PA. This suggested that the existing pedagogical approaches through which our participants

experienced PA and sport acted to privilege skilled or popular participants, often at the expense of those less skilled or marginalised. Such findings are not unique to our study, as Light and Georgakis (2005) explain "despite promising developments in physical education teaching, still-dominant approaches emphasising the mastery of technique before playing games marginalise and exclude girls and the less confident males" (p.68).

In designing the curriculum, the concepts of *productive pedagogies* (Hayes, Mills, Christie, and Lingard, 2006) were used as a framework to guide the development of the Triple G curriculum and its associated teaching and learning approaches. Under a 'productive pedagogies' approach, the dimensions of 'intellectual quality', 'connectedness', 'supportive classroom environment' and 'working with and valuing difference' are incorporated in classroom practices, with the aim of "improving the learning of all students…[and]…on improving the outcomes of students who traditionally underachieve and under-participate in education" (Hayes, et al., 2006, p. 4). For example, referring to the dimension of 'intellectual quality', classroom practices that promote 'higher-order thinking' or 'problematic knowledge', such as considering how ball placement in tennis impacts on an opponent's ability to return the ball to play, requires students to focus more on a situated understanding of the game of tennis, rather than the performance of a discrete skill in isolation, contributing to the development of a deeper level of understanding. Additionally, considering the reported concerns around disharmony between groups of girls and high levels of surveillance within some classroom settings, elements of the 'supportive classroom environment' dimension have been incorporated through activities where individuals self-regulate their progress and are required to provide social support to each other through collaborative and co-operative games. These small game activities (often with only two or three participants) act to reduce incidences where one individual 'performs' whilst other members of the class environment 'watch'. The use of icons in the lesson plans help to

signpost particular classroom practices and strategies that have been conceived with the productive pedagogies dimensions in mind.

Positioning the Triple G Program initially within a PE curriculum required the selection of an appropriate and relevant pedagogical approach for the sports of tennis and football. The 'Game Sense' approach was identified and adopted in recognition of the recent shift towards using this approach in both sports coaching and the teaching of games (Light, R and Georgakis, 2005). A fundamental premise of this approach is to challenge "…this notion of progression as an additive process by proposing that children could learn to play modified versions of games ahead of mastering the mature skills" (Kirk, 2010, p. 85). Developed as an Australian version of Bunker and Thorpe's (1983) Teaching Games for Understanding (TGfU) model, 'Game Sense' was released in 1997 by the Australian Sports Commission in conjunction with the Australian Coaching Council through their release of a video titled *Game Sense: Developing thinking players*. According to Tinning (2010), it was designed to "increase the motivation of players and develop tactical and strategic thinking in addition to skill development" (p. 61). As Light and Georgakis (2005, p.69) have argued:

> …games and sport have been 'dumbed down' by dominant coaching and teaching approaches to obfuscate their inherent complexity and their intellectual dimensions. The idea that successful play in sport requires the mastery of discrete 'fundamental' skills represents an impoverished conception of games learning that is out of step with contemporary approaches to learning across all subject areas.

Whilst versions and applications of TGfU and games sense have attracted critique in PE literature, Kirk (2010) suggests that the reason such approaches have incited resistance from practitioners and researchers is because they challenge the traditional and enduring belief that

fundamental movement skills are "prerequisite to game play. TGfU challenged the order of the skill-learning universe" (p. 85). As a teaching approach, Game Sense encourages the learner to be active in understanding the tactical dimensions of the game, and their related skills, through the development of game appreciation. In perhaps one of the most theorised contributions to the teaching of PE using Game Sense, Light and Fawns (Light, R. and Fawns, 2003) explain that by beginning with modified games that reduce skill demands to allow all students to participate, attention can be focussed on the tactical and strategic dimensions of the game rather than on skill performance alone. It is suggested that through this approach "students develop basic game appreciation and are immediately confronted with the basic problems that characterise play in the full version of the game" (Light, R and Georgakis, 2005, p. 69). The use of teacher questioning, as a distinctive feature of this approach, aims to develop student understanding about "where to be, when to be there and what to do when you get there" (Tinning, Macdonald, Wright, and Hickey, 2001, p. 190) (p.190).

We felt it was important to provide some congruence between the types of activities that students were asked to participate in through the Triple G school component and the after-school community club component. Considering the prevalence of TGfU/Game Sense through community sports club coaching environments, the selection of this as a pedagogical approach in the curriculum design served this purpose.

CONCLUSION

This study presents a unique integration of theoretical factors to design a sound intervention aimed at overcoming a pervasive and persistent difficulties in engaging adolescent girls in PA. The use of a mixed qualitative and quantitative methodology has enabled a program to

be designed which will be informed by a deep understanding of the context in which girls' PE and sport are undertaken. The outcomes of the program will be evaluated using a sound quantitative research design along with additional further qualitative investigations to gain valuable insights into what happened and why. It is hoped that this approach to curriculum design and program implementation will be able to inform other similar programs in this key area of research.

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Table 1: Overview of Triple G Project

Phase 1: Program design (18 months duration)	Phase 2: Program Implementation and evaluation (18 months duration)
Ethnographic Fieldwork Investigated how girls make decisions about PA to explore in-depth the barriers to PA through girls' lives and experiences. **Collaborative Intervention Design** A collaborative process between industry and community partners and the research team to design a school-based introductory physical education program that was linked to both school curriculum and community PA programs. **Theoretical Grounding** Theoretical frameworks and approaches were applied to help guide and inform the development of the program.	**School-Community Links Intervention Program (12 months duration)** Adolescent girls from eight schools (across six regional communities) participated in a school-based PA program that was linked to ongoing community-based PA opportunities. Process and impact data collection were collected from the eight intervention school, as well as in eight matched control schools. **Evaluating and theorising the linkages** Review, evaluation and refinement of a model for school-community linkages in sport and PA that promotes conditions conducive to PA participation for rural and regional living adolescent girls.

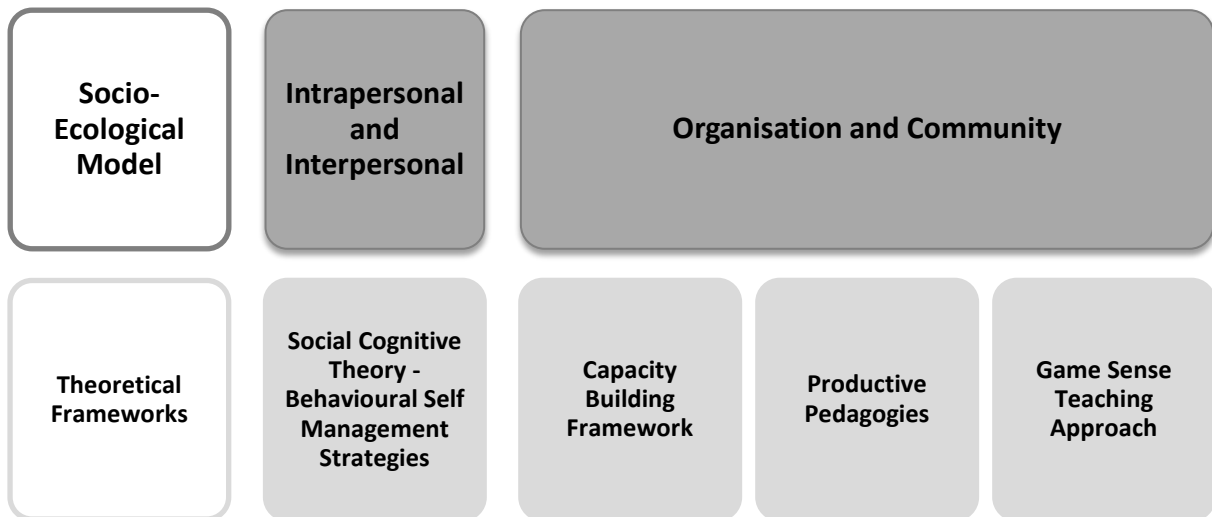**Table 2: Cognitive and Behavioural Strategies by Marcus and Forsyth (2003)**

incorporated into the Self Management Journal Activities

Cognitive strategies	Behavioural strategies
Increasing knowledge – *Clued in.* Encourage the individual to read and think about PA	**Substituting alternatives – *What if?*** Encourage the individual to participate in PA when they are tired, stressed, or unlikely to want to be physically active
Being aware of risks – *Get off the couch.* Provide the individual with the message that being inactive is very unhealthy	**Enlisting social support – *Hey Chick / Yo Bro.*** Encourage the individual to find a family member, friend or co-worker who is willing and able to provide support for being active
Caring about consequences to others – *Who cares? We do!* Encourage the individual to recognise how their inactivity affects their family, friends and co-workers.	**Rewarding yourself – *Treat yourself.*** Encourage the individual to praise themselves and reward themselves for being physically active
Comprehending benefits – *Active lifestyles rock.* Assist the individual to understand the personal benefits of being physically active	**Committing yourself – *Bring it on.*** Encourage the individual to make promises, plans and commitments to be active
Increasing healthy opportunities – *Grab it with both hands.* Help the individual increase their awareness of opportunities to be physically active	**Reminding yourself – *Don't forget.*** Teach the individual how to set up reminders to be active, such as keeping comfortable shoes in their bag or locker, ready to be used at any time

Table 3: Capacity building strategies to enhance school and community environments that facilitate the engagement of girls in PA

Capacity building framework	Strategies
Organisational development	• School and community workshops with school leadership team (i.e. Principals, Assistant Principals), PE department, sports club administrators and coaches, and YMCA centre management and fitness instructors to increase awareness of barriers to girls' participation in PE, sport and PA and advocate for change in the delivery of PA programs. • The changes that were advocated were based on the ethnographic findings and aimed to engage the key stakeholder groups in the decision making process to ensure the program matched their school/community needs. • Examples of school level changes: blocking of multiple year level classes to create opportunities for single-sex classes, and/or to provide students with choice in the types of physical activities or to group students by ability level (i.e. beginner, intermediate, advanced). • Examples of community level changes: social and non-competitive sports and recreation programs after-school.
Workforce development	• Professional development day on program principles and pedagogical foundations. • Provision of program resource manual – includes lesson plans mapped against VELs. • Provision of club/YMCA workbook to plan social and non-competitive sports and recreation programs after school.
Resource allocation	• School provided with a total of $2000 (AU) over a two-year period to support teachers plan for the program, establish program processes such as booking coaches and facilities, and to purchase new equipment. • Transport funding was provided (where necessary) for the final lesson in each unit to bus students to the community facility (i.e. sports club or YMCA centre).
Partnership building	• A member of the research team linked sports coaches and fitness instructors with the school to team-teach during the school-component of the program (i.e. PE classes). This involved initiating meetings between teachers, coaches and/or YMCA instructors to plan the logistics of program delivery such as confirming program delivery times and format, equipment needs, and facility space. Importantly, the partnership strategies provided flexibility in the structures and processes to the collaborations to meet individual school and community needs.
Leadership	• Distinctively, the program incorporated a team teaching-mentoring approach which provided PE teachers with opportunities to work with sports coaches and fitness instructors to enhance their knowledge and skills in sports (tennis or football) and recreational activities. Likewise, sports coaches and fitness instructors were provided with opportunities to work with PE teachers and their classes to enhance their knowledge and ability to work with large groups of students whose motivation and skill level varied.

Socio-Ecological Model	Intrapersonal and Interpersonal	Organisation and Community		
Theoretical Frameworks	Social Cognitive Theory - Behavioural Self Management Strategies	Capacity Building Framework	Productive Pedagogies	Game Sense Teaching Approach

Figure 1: Theoretical frameworks underpinning the Socio-ecological

Model design of the Triple G Program