

Olympic Legacy: The Social Cleansing of London's E15



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Background:

This poster examines the consequences of regeneration in the aftermath of the London 2012 Olympic Games. In particular, the issues of gentrification and displacement are discussed in examining the unique impact that the Olympic Games have had, and continue to have, in reshaping social and urban areas across the London Olympic Boroughs.

So great is the level of transformation in some London Boroughs, that it led the influential urban studies author Paul Watt (2016:218) to describe the East End areas such as Hackney and Stratford as "gentrification on steroids". The impacts are varied, however whilst the University of East London (UEL, 2015:15) reports reduced levels of Poverty and Social Exclusion (PSE) across the Olympic Boroughs post-2012, it is an area-based measure rather than people-based (Cohen and Watt, 2017). This disparity is highlighted by the London School of Economics (LSE) Housing and Communities (2014) organisation, who state:

"Life in general and rising costs in particular, make survival increasingly difficult... Rent, energy bills, the cost of childcare and food... a decline in job security, income and prospects. They feel worse off and are generally insecure."

In 2016 it was reported that Newham had become the 25th most deprived Borough in England, a huge improvement from #2 in 2011. On the surface this is to be applauded, however, as house prices rise and rents soar many analysts suggest that the 'gentrifiers' are displacing Newham's poorer residents.



Qualitative Findings (2a):

The qualitative case studies provided rich and contrasting data. Case study 1 focused on the areas to the south east of the Olympic Park. Here property values and rents were increasing rapidly and the area was awash with evidence of the contemporary subculture of 'hipsters' who were responsible for the abundance of new coffee shops and warehouse galleries in the locale.

Case study 2 revealed omnipresent levels of construction that were not only transforming the skyline but having significant impacts on the social fabric. Carpenter's Estate in particular was the scene of ongoing battles between residents and the Local Authority over compulsory evictions.

Qualitative Findings (2b):

The Focus E15 Campaign group also emerged following the OG and largely down to them the battle to save Carpenter's Estate has yet to be resolved. Using social media networks and the support of a prominent East End comedian (Russell Brand, see main article from the Newham Recorder) the group have grasped the agenda and got their message out to the broader public. It is a campaign that reflects the struggles that the seminal activist Helen Lenskyj (2000:61/2) would have identified: politicians, sport leaders, corporations and the media attempt to manufacture public consent and individuals and social groups struggle to challenge this hegemonic consortium. Nevertheless, on the back of a high profile court case, the campaign has endured.

Since 2016 the former Olympic Stadium has welcomed a new tenant: West Ham Utd. The impact that this had on the Carpenter's Tavern, a pub in the heart of the estate, with huge football and related revenue streams on gamedays, may be significant and worthy of further research.



Urban Theory

The legacy and sustainability of mega-events, such as the Olympic Games, is an ongoing challenge for host city urban planners, social actors and political agents. Such an event requires massive resource allocation, financial investment and spatial provision (Friedmann and Wolff, 1986). Urban Theory argues that the need to generate income to facilitate such expenditure, means that economic priorities prevail in the formation of city development. It can therefore be argued that wealth creation has ascendancy over cultural aspirations and increasingly, in a globalised world, there is a mandate to mould the city to complement the global economic structure.

In the context of this poster, consideration of the legacy of the London OG will be illustrated in the light of such economic prioritisation (primarily in the London Boroughs of Newham and Hackney):

- increased housing and rental costs,
- loss and manipulation of community through displacement,
- loss of amenity and homogenisation.

Quantitative Findings (1):

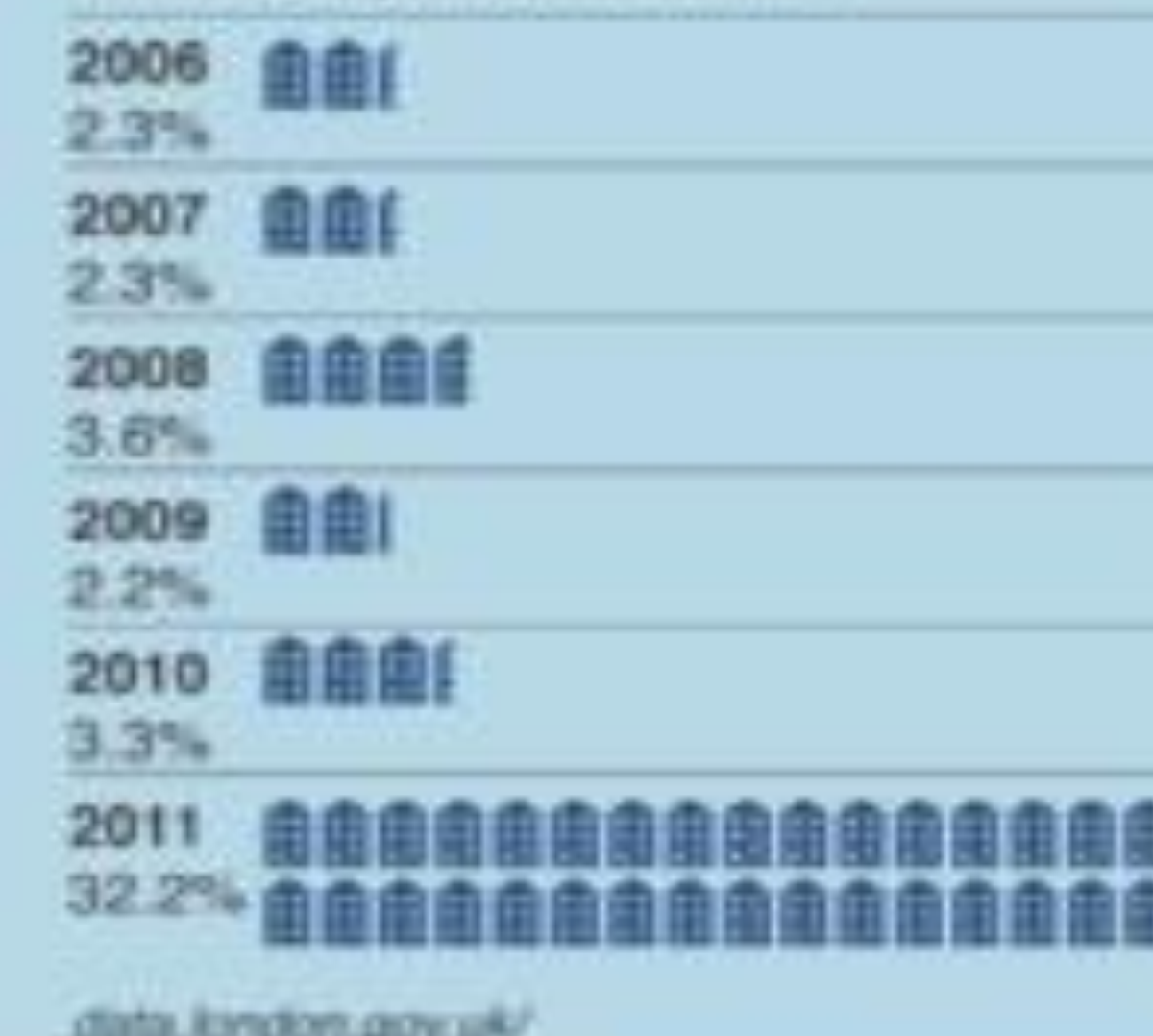
House Prices in Hackney Wick:

The HPI provides evidence that, between July 2009 and July 2014, the Borough of Hackney has experienced enormous levels of gentrification-related house price growth (82%), significantly above the London average (48%).

Rental Prices in Newham:

Newham tenants bore weekly rental price rises between 2005/6 and 2010/11 of 13.7% over the five years, in line with UK inflation. However, in the following year (2011/12), the year leading up to the Olympic Games, the weekly rate rose dramatically by 32.2% (7 times the national rate of inflation, which stood at 4.5%).

Rental values for Local Authorities in Hackney and Newham



Methodology:

The poster is based on mixed method research, which facilitated both confirmatory data (the House Price Index - HPI) and exploratory case studies. The qualitative data is based on a 'key case' approach (Thomas, 2011); the case studies examined i) Hackney Wick and ii) the Newham Borough along Leyton Road to the Carpenter's estate. Supplementing the case studies, 54 questionnaires were administered to random residents, with the objective of establishing the interviewee's positive and negative perceptions towards London 2012 legacy.

"My kids have all moved out of London to Kent and Essex. Can't afford it here now. I still see them, but not as much..."

"It is criminal what they have done here. The whole fucking lot of them should be shot. These are people's lives. They grew up here. Their kiddies were born here..."

"People want jobs and affordable housing - so what do they do? Board up the houses and build a University - how the fuck does that help me?"

Conclusion:

The agenda appears to be driven by two distinct sectors; the private, non-governmental sector in case study one and a public/private sector alliance in case study two. In Hackney, the hipsters were arguably unconsciously laying the foundations of a more 'hip' west London lifestyle that would drive up property values and displacement.

Case study two, revealed huge levels of commercial and residential construction, marketed as being in close proximity to the Olympic Park and its world-class facilities. The evidence suggests that the 'heating-up' of the E15 property market may well be contributing to a 'cleansing' of the indigenous population into a broader, hegemonic construct.

However, there are also clear signs of effective resistance to the 'regeneration' of the area: The campaign group called 'Focus 15' appeared to have gained some political traction, enough for its voice to be heard in the next phase of urban planning.

Recommendations:

This paper calls for a binding host-city commitment that ensures Tokyo, and future host-cities beyond 2020, convert their respective athlete villages into truly affordable housing. Furthermore, local authority social-rental values in the vicinity of the Olympic complex are frozen to support the most vulnerable tenants.

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HPI
Newham Recorder

The Influences of Participation in an Elite Paralympic Military Program on the Self-Identity of Active Duty Service Members with Acquired Disabilities

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INTRODUCTION

- More than 2.5 million service members had deployed to aid the efforts in either Iraq or Afghanistan, and 48% of those had completed two or more tours of duty. Consequently, one in six combat veterans returns home with a severe injury, primarily as a result of exposure to an improvised explosive device (DOD, 2010).
- The challenges returning from combat have been well documented, including; post-traumatic stress, depression, substance abuse and other mental health concerns (Toblin, Riviere, Thomas, Adler, Kok & Hoge, 2011). In fact, the majority of veterans who served in Afghanistan and/or Iraq reported experiencing adversity adjusting to civilian life post-deployment, a figure doubled from previous military engagement (PEW, 2011).
- Identity conflict, which can arise after separation from military combat service can be a potential trigger for mental health distress. This research contends that psychological conditions such as PTSD are almost exclusively diagnosed by formal institutions without fully considering the veteran's interpretation of their lived experiences which directly influence one's resilience, stability and ability to cope (Smith & True, 2014).
- Participation in elite sport can promote the development of identity constructs similar to those derived throughout one's military career, creating a foundation to re-establish identity (Chockalingam, Thomas & Duval, 2012).
- To date, research efforts have not explored the impact training full-time in elite sport programs funded by the military may have on the re-establishment of identity of combat service members with acquired disabilities.

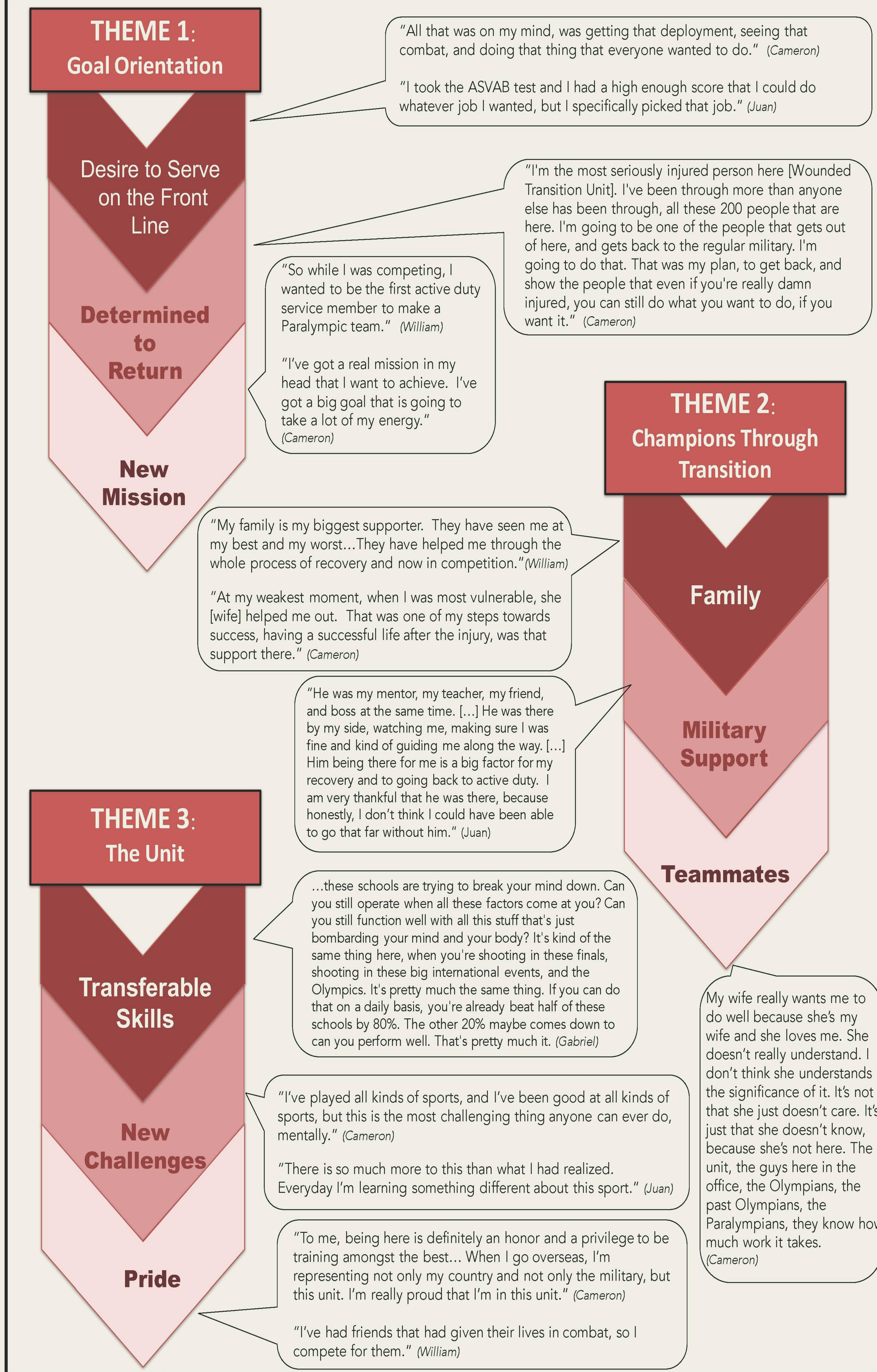
PURPOSE

This study explores the influences of participation in an elite military sport program has on the self-identity of active duty services members with acquired disabilities. The overall aim is to draw upon the life experiences of these service members who chose to continue to serve their country as a part of a specialized Paralympic military unit to gain an enhanced perspective on how elite sport programming influences self-identity post injury. With this understanding, recommendations can be made for further support, development, and implementation of in-service military elite sport programs.

METHOD

A phenomenological approach was employed, using a three phase semi-structured interview protocol to capture military journeys of four (4) male service members who had sustained a physical disability as the result of a combat injury and chose to remain on active duty status as a part of a specialized marksmanship unit designed to prepare service members for the Paralympics.

RESULTS



THEORETICAL FRAMEWORK

Concepts of self-determination theory (SDT) were present across the narratives of the participants’ described military careers. Self-determination theory has frequently been used within therapeutic recreation and sport for veterans’ literature, but additionally offers implications regarding identity construction.

Human motivation is the primary focus of SDT, which suggests that manifestation of self-determination is most apparent in individuals who experience a sense of autonomy, competence and relatedness (Ryan & Deci, 2000). Together these essential components foster personal growth and wellbeing. Furthermore, SDT aids in our understanding of the processes of which identities are acquired. Through the lens of SDT, the internalization and regulation of an identity can vary based upon an individual’s intrinsic and/or extrinsic motivation. More specifically, when personal value is attached to an endeavor, there is a higher tendency for internalization of that role, as well as persistent engagement in the activity, which in turn increases the saliency of that identity (Ryan & Deci, 2012). Within the context of sport, SDT conveys that activities that satisfy an individual’s psychological needs prove to be more meaningful (Deci & Ryan, 1985).

CONCLUSIONS

- Through the lens of SDT, the findings from this study depict a group of highly self-determined service members, who throughout the course of their military journey experienced a strong sense of competence, relatedness and autonomy. These constructs may provide insight into the motivational traits of a very small population of service members who return to the military following a war related injury.
- Within the context of an elite military sport program, the findings identify unique variables of the unit that provide meaningful experiences to meet the psychological needs of this specific population. Therefore, the military sport unit became a bridge to mend and enhance the participants’ internalization of the service member role and additionally served platform for personal growth.
- While participants’ may have attached different meaning to this identity, such as new athletic responsibilities and challenges, the importance of continuing to serve within in the military remained central.

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Surf Therapy and Differently-abled Children



Extending Waves for Change's Child-friendly Mental Health Surf Therapy Program to Children with Autism Spectrum Disorder

Introduction

"We have a choice: invest in the most excluded children now or risk a more divided and unfair world." - The United Nations Children's Fund

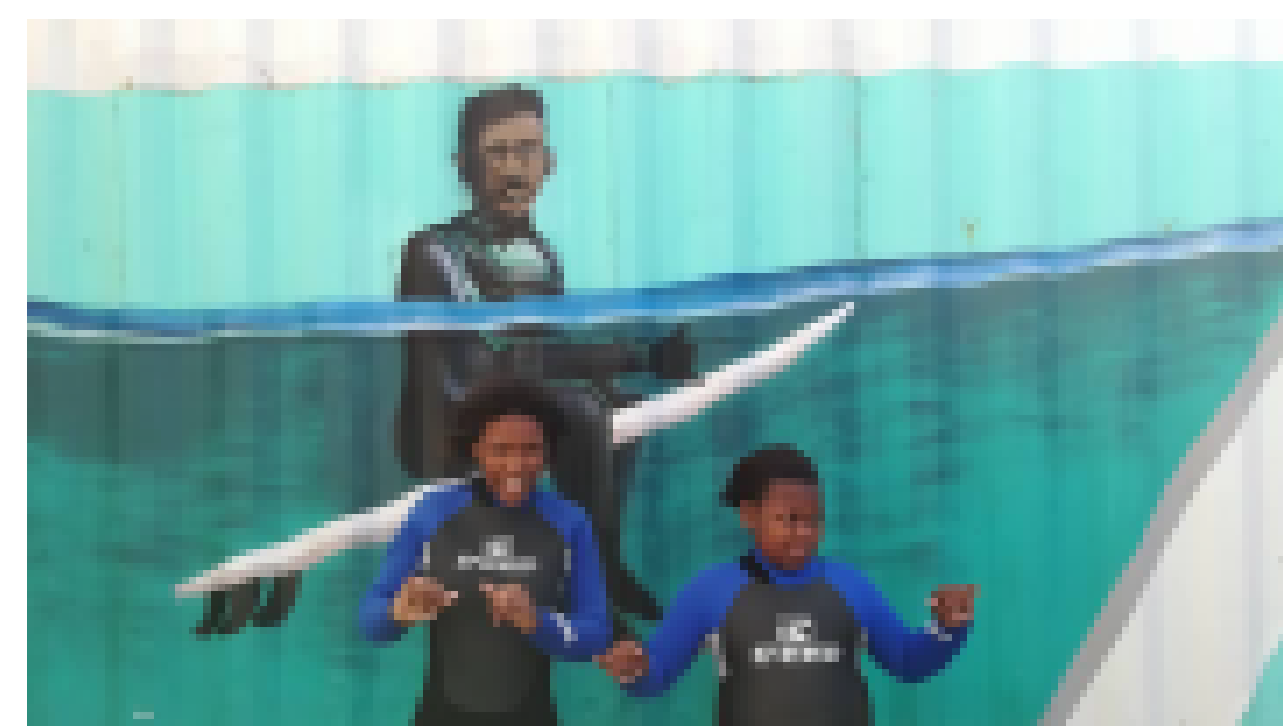
This poster provides the findings of an internal study of Waves for Change's (W4C) surf therapy program piloted with a group of differently-abled learners, that is learners with Autism Spectrum Disorder (ASD). W4C provides a child-friendly mental health service to at-risk children living in unstable communities. W4C gives children skills to cope with stress, regulate behaviour, build healing relationships, and make positive life choices. The purpose of the pilot was to increase access to the W4C surf therapy program to learners who are excluded and marginalised, and do not have access to structured developmental programs.

Research Question

W4C's surf therapy program has proven that children who complete the 12 months program have overall improvement in their mental health. Given the positive changes the surf therapy program has proved to have on the well-being of participants, W4C conducted research on the pilot surf therapy program offered to differently-abled children, to establish whether the program brought about similar, or different, changes to children with ASD.

Participants

In August 2017, 18 learners with ASD were enrolled in a 10-week pilot surf therapy program based at W4C's Monwabisi beach site, Khayelitsha. The pilot program sessions were offered weekly, in the mornings.



Method

Two qualitative data collection methods were used to collect primary data, namely direct observation, and unstructured, face-to-face interviewing. W4C coaches and an external occupational therapist observed the children during the 10-week project; whereafter they were interviewed to capture observations from the field. It is also important to note that the study was an internal W4C research project. As such, the research findings are not representative of any larger population and should be interpreted with the necessary discretion.

Relevance

Differently-abled children appear to be a minority population, excluded from mainstream mental health services.

- In South Africa, an excess of two million children (aged 0 to 14) have some form of disability.
- There are only 1,12 psychiatrists, 1,28 psychologists and 1,6 social workers per 400 000 people in South Africa.
- The need for mental health care for differently-abled children in South Africa appears to be even bigger than that of adults; 2013, there were 116 504 learners in the Special Need schooling sector who attended 448 institutions and were served by 10 252 educators.

In probing the effect of the program on differently-abled children, W4C would be in a position to adapt the program to suit the needs of the children better, and offer inclusive mental health services through surf therapy.

Results and Discussion

The W4C surf therapy program consists of five key pillars, namely:

- 1) Connection to consistent adult support; 2) Access to challenging new tasks; 3) Access to a safe space; 4) W4C teachable moments/ psycho-social education; and 5) Connection to new opportunities/ training/employment.

However, given the challenges faced by learners with ASD, the W4C surf therapy program had to be adapted to ensure the children benefit from participation. Learners with ASD often present with ongoing social-communication problems that include difficulty communicating and interacting with others, repetitive behaviours as well as limited interests or activities and sensory integration issues. Considering these challenges, the pilot program provided differently-abled children with:

1. Caring adults, in the form of surf coaches and mentors;
2. A safe space, in the form of the beach, to access a challenging but fun task, that was swimming in the sea (while sometimes using surfboards); as well as
3. Weekly psycho-social sessions appropriate to children with ASD, such as breathing exercises and sensory exploring.



An example of a session in the pilot program was the following activity:

1. *Sit on the ground. Close your eyes. Put your hand out in front of you. Touch one of your fingers with your other hand. Squeeze it and breathe in. Let go and breathe out. Repeat with each finger.*
2. *Combining counting and breathing: 10 deep breathes. Sit on the ground. Close your eyes. Breathe in - "1" - breathe out. Breathe in - "2" - breathe out. Repeat.*



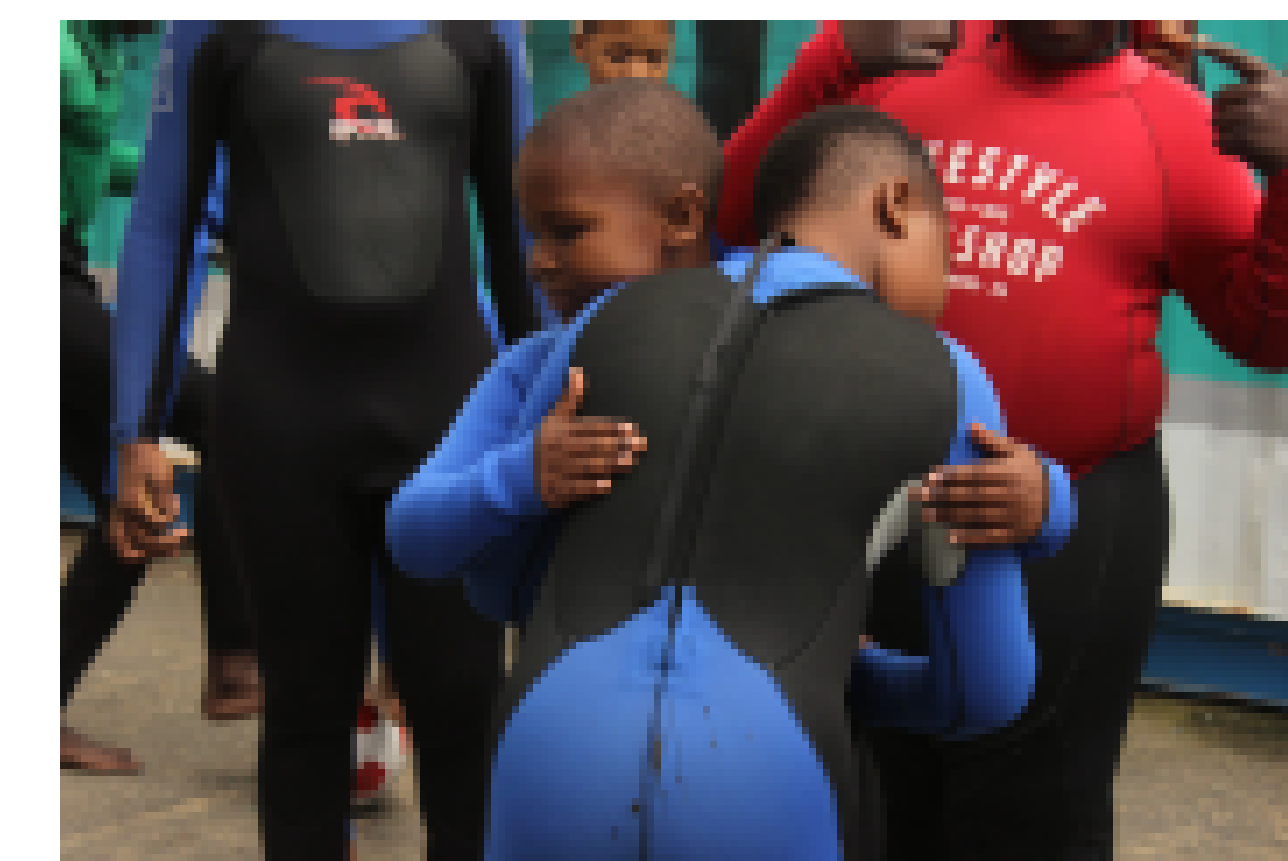
Parent testimonial

"Thank you for giving my child the opportunity to be part of your program. There is quite some improvement in the way he does things. I noticed now he wants to be part of his peers. There were boys his age playing street football the other day, and to my surprise he went and kicked the ball with them, whereas before he would just let the ball roll over and not help them out. Also his speech has improved and he likes to speak English a lot!"



Key Immediate Outcomes

A number of key immediate outcomes of the ASD surf therapy pilot are noted below. Direct quotes are additionally provided, which were used to identify themes and subsequent program effect on the children.



More confidence

"The teacher told us that the children weren't very social and don't interact with each other a lot. One of the children was often last to get in the water. As coaches we would always shout for him, praise him, and encourage him to get him in the water. In the last two weeks, the other children have begun to encourage him too; they started to shout for him and clap for him before we do! It's great to see them interacting. He went into the water more and more."

- W4C surf coach.

Improved social interaction

"The children are more social at W4C than at school. In general children with their cognitive functions are quite independent and don't do much group play or interaction. Empathy, and understanding that someone else's feelings can be different to their own, is difficult for them. At the programme, they've shown a little more willingness to engage with each other, and to act as a group, which is great."

- Teacher and occupational therapist.

An increase in communication initiation

"Introducing the W4C Kilo - a 'follow-the-leader' style group energizer, performed in a circle - also proved effective and increased the learners' attempts to communicate with the W4C surf mentors. Call and response, copying actions and group activities were good for the learners. The learners were initially very independent and didn't interact with the coaches easily. But this changed when they did the W4C kilo exercise."

- W4C surf coach.

Increased verbal output (speaking more)

"One of the boys doesn't usually greet anyone. Last week, he specifically said hello to me though, and the teachers noticed and commented that it's something new for him to communicate in that way."

- W4C surf coach.

Improvement in peer relationships, as well as interaction and bonding with adults

"I have seen so many changes - self-confidence, communication and social interaction. In general children with their cognitive functions are quite independent and don't do much group play or interaction. Since being at Waves for Change, the children have shown a willingness to engage with each other, build friendships and high fives...lots of high fives!"

- Teacher.

Unintended Outcome: Personal Development of W4C Coaches

The W4C surf coaches reported increased personal development as a result of facilitating the surf therapy sessions to the differently-abled children. Coaches experienced an increased understanding of mental illness and autism; which they can use to positively affect the widely prevalent stigmatisation of mental illness in South Africa.

Way Forward

Based on the results of the research W4C is:

- Scaling the differently-abled surf therapy program across all our sites.
- Collaborating with academics to conduct a robust evaluation of the program outcomes.
- Advocating with Government to assist making surf therapy more accessible to differently-abled children.



Sport & Society

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INTRODUCTION

Athletes can develop many interpersonal relationships. The most important relationship can be the one athletes develop with their coach as it can have the greatest influence on the training process, performance outcomes, and satisfaction with sport experience. Understanding the importance of coach-athlete relationship in inclusive sport continues to be limited.

The purpose of this paper is to: 1) describe the role coach-athlete relationship can play in inclusive tennis programming, 2) demonstrate adaptation techniques and strategies using an athlete-centered approach, and 3) present potential implications for practice and research.

The complexity of the coach-athlete relationship including its meaning and key components are discussed. Accessibility to the inclusive sport is considered.

BACKGROUND

The coach-athlete relationship may be defined as “a situation in which a coach’s and an athlete’s cognitions, feelings, and behaviors are mutually and causally interrelated” (Jowett & Poczwadowski, 2007, p. 4).

The coach-athlete relationship can be essential for inclusion due to its influence on the athletes’ learning process and performance outcomes (see Poczwadowski, Barott, & Henschen, 2002). The coach-athlete relationship can shape athletes’ sport experience, quality of play, and ongoing participation; it can positively influence coaches (Poczwadowski et al. 2002) and in turn, help develop the sport and one’s potential (Yang & Jowett, 2012).

The positive coach-athlete relationship in inclusive tennis contexts can extend beyond the expected individual benefits and reduction of attitudinal barriers. It can help transform sport communities where all members are recruited, welcomed, and valued, fully participating and learning with their peers, experiencing reciprocal social relationships (see social justice principles in Bullock & Mahon, 2017).

Inclusive sport contexts allow all individuals (with and without disabilities) to participate in physical activity together (see Devine & Parr, 2008). Inclusive contexts go beyond integration, they consider *social inclusion*, which

- ensures that everyone is able to participate as valued, respected and contributing members.
- requires more than the removal of barriers or risks.

(Donnelly & Coakley, 2002).

Provision of inclusive sports programming helps “stop ‘othering’ and treating people who are on the margins...as if they [are] somehow inferior” (Paisley & Dustin, 2010, p. v).

Inclusive tennis can be defined as freely chosen, non-exclusive programs and events with readily available accommodations facilitating and supporting tennis participation.

Tennis is a good context for inclusion as it is easily adapted. Coaches and players with and without disabilities can follow own rules of the court while playing together (e.g., double bounce in wheelchair tennis and single bounce in tennis) offering minimal adaptation to the game.

Perhaps it is not surprising then, that the coaching manuals and certification programs have a designated focus on wheelchair tennis in Canada and worldwide (e.g., ITFTennis.com, 2018; Reid, Quinn, & Crespo, 2003; Tennis Canada, 2018).

Coach-Athlete Relationship & Athlete-Centred Approach

The person-centred approach focuses on “fostering an individual” using a ‘people’-first’ language to promote a positive attitude and focus on the individual rather than the disability (see Bullock & Mahon, 2017, p. 7). The approach serves as a reminder of varying views and perceptions of what having a disability may mean to people (e.g., limitation vs. inconvenience).

Dyadic compatibility seems consistent with “autocratic behaviour” in that athletes seek coaches who encourage self-determination, decision-making, and autonomy regarding sport development (Prapavessis & Gordon, 1991) suggesting a desire for an athlete-centred approach in cooperative coaching (Crespo & Miley, 2002).

In this way, the athlete-centred and/or person-centred approach allows for more inclusive tennis programming. Provision of inclusive tennis should rest on participation and development of *effective* and *successful* coach-athlete relationships that can have positive long-term effects.

An *effective* coach-athlete relationship focuses on growth and development, is holistic in nature, and is based on things such as empathetic understanding, honesty, support, liking, acceptance, responsiveness, friendliness, cooperation, caring, respect, and positive regard (see Jowett & Cockerill, 2003).

A *successful* coach-athlete relationship is the one with positive tangible (wins) and non-tangible (skill, wellbeing) outcomes (see Jowett, 2005).

Furthermore, to ensure full accessibility, inclusive tennis programs should include ongoing *player and activity profiling*, and *sport adaptation*.

Profiling considers players’ skills and capabilities in relation to sport criteria such as aim of the game, court rules and regulations, time, place, and procedures, equipment, and standard skills (see Figure 13.4 and Figure 13.5 in Bullock & Mahon, 2017). Adaptation is minimal (as needed) and considered inclusive to all players as it often occurs throughout participation for technical and tactical purposes (e.g., progressive tennis, equipment specs, first serve in, etc.).

DISCUSSION

Tennis players with disabilities continue to be underserved at the tennis clubs. Although wheelchair tennis shows growth and integration within the broader coaching and tournament system since 1976 (when it was founded), tennis players with physical disabilities are limited in their participation choices. In Canada, a total of 8 provinces (excluding Newfoundland and Nova Scotia) accounting for 13 tennis clubs and 2 community centres are registered and listed as wheelchair tennis providers (Ontario Wheelchair Sports Association [OWSA], 2018).

Indeed, the number of clubs registered with OWSA may not be representative of every wheelchair program/event available. However, not all registered provinces offer program information and details (e.g., New Brunswick, Saskatchewan, Prince Edward Island offers no new information since 2016). This reduces the availability of tennis programs for players with physical disabilities to 5 provinces.

Furthermore, the registered clubs and their respective segregated events suggest integration of players with physical disabilities rather than social inclusion, indicating that more effort is needed in making tennis fully accessible.

Integration of players with disabilities, in general, seems to be absent. The long-term athlete development (LTAD) although seemingly inclusive in its suggestion that players with physical disabilities would go through the same stages as players without disabilities, fails to offer insight on how the stages of development would play out for those living with intellectual and developmental disabilities, mental illness, visual/hearing impairment, and multiple disabilities. More attention and detail to LTAD content in its entity is required to include players with disabilities.

CONCLUSION

Tennis clubs should start implementing inclusive and more accessible programs for people with disabilities to comply with the AODA Act 2005.

Provision of all tennis services should focus on fostering participation and effective and successful coach-athlete relationship.

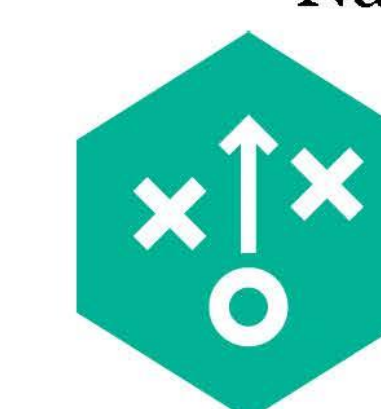
Training/orientation on customer service, accessibility standards, person-first language, communication (tone, eye contact), and supports (service animals and support persons) should be part of coaches’ certification requirement and an ongoing annual/seasonal orientation for club staff/volunteers.

Tennis specific studies dealing with the coach-athlete relationship directly or indirectly are scarce and future research should explore more inclusive sports programs and the experience of dyads (coach-athlete) within such contexts.

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Sport & Society

Formalization of Sports

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ABSTRACT :

The tools constructed for the formal analysis are graphical representation of sports, typologies and vocabulary. The graphical representation of sports takes shape with the help of the serializability factor, events and the governing rules of the sports. The graphical representation of sport allows us to glance at the concept of sport in a technical point of view - as a list of events and as a list of sequence of events, instead of granting sports, a higher respectability by juxtaposing sport with art. Typologies and Vocabularies help in the abstraction of the graphical representations of sports. The abstraction allows us to arrive at a formal analysis of sports

Sport is Art? Sport is not Art?

- Confusion between Aesthetic and Artistic
- Sports is art in the objet trouve sense.
- Why does this conundrum exist?

Answer lies in the Formalization of Sports

Graphical Representation of Sports

- All the possible events that could constitute the game play of a sport are defined.
- Any possible sequence of events that could contribute to the game play of a sport are defined.

Serializability

The serializable factor of a sport can be defined as a single, unique aspect of the sport that traverses across the entirety of the game-play of a sport and allows the spectator to follow the entire game play just by observing it.

Sport	SF
Archery	Arrow
Kabaddi	Raider
Cricket	Ball
Discus Throw	Discus

- Are there sports, in a larger sense, games that do not have serializability?
- Sports with more than one serializable factor perhaps?

Event

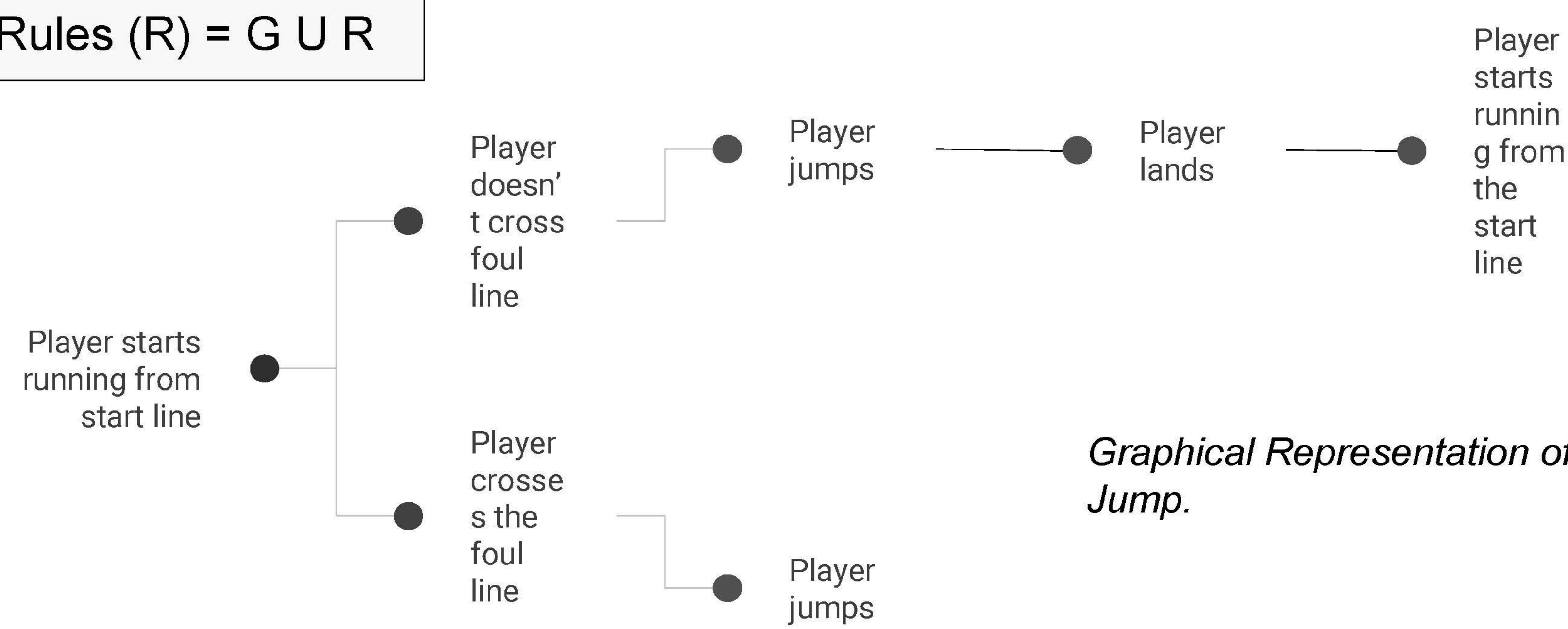
Events are the building blocks of the gameplay of any sport. In the graphical representation of sports, every event leads to a set of next possible events until it reaches its termination(point, score, foul etc).

Any significant change in the state of the serializable factor indicates the end of one event and prompts the beginning of the next event.

Governing Rules

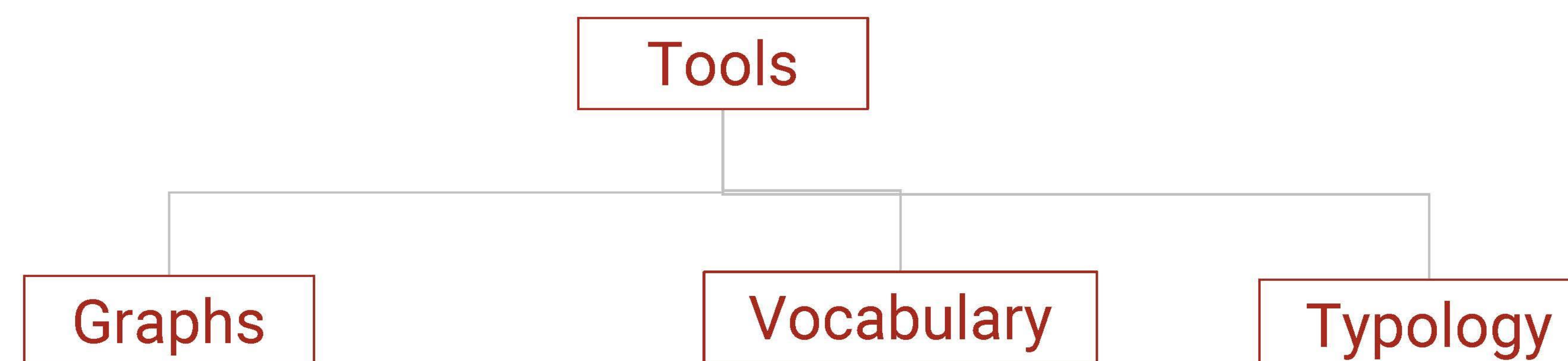
- Game Rules (G)
- Event Rules (E)

Rules (R) = G U R



Graphical Representation of the sport - Long Jump.

Attempt at building a Grammar



Typologies

Based on “Bottom up approach”.

- Based on Events
- Based on Updating score
- Based on Game-play
- Based on Intention.

Based on Event :

→ Single Event :

- ◆ Archery, Cycling

→ Two Events :

- ◆ Hurdles, Dodgeball.

→ Multiple Events :

- ◆ Kabaddi, Pacman.

Based on Updating Score :

→ Win Condition :

- ◆ Rugby, Football

→ Loose Condition

- ◆ Squash, Futsal

→ Win & Loose Condition :

- ◆ Lagori, Cricket.

Based on Intention :

→ Execution centric :

- ◆ Diving, Skating

→ Intention centric :

- ◆ Kho-kho, Luge.

Based on Game-play :

→ Make - believe :

- ◆ Child's play

→ Competitive :

- ◆ Carroms.

Vocabulary

Vocabulary of a domain of knowledge is a compilation of all the words that are used to communicate the ideas within the domain of knowledge..

The following are the properties that should be observed in a vocabulary of domain of knowledge :

- Exhaustive
- Redundant
- Context -free.

Abstraction & Grammar

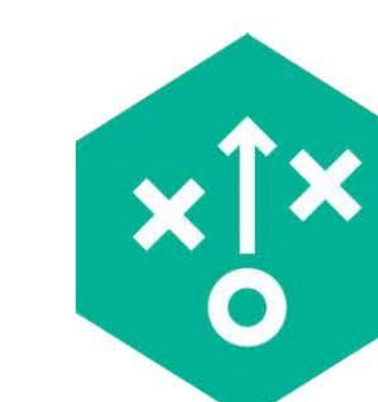
Formalizations derived from the graphical representation of sports form the basis for the grammar of sports.

Abstract Level Graphical Representation of Sports :

Based on the available graphs, a coarse AIGRS is built. To fine tune it, so that it reaches the level of abstraction required, it is tested against a new set of graphs of sports.

Grammar is proposed with the following properties :

- Properties (P)
- Relations (R)
- Axioms (A)
- Concepts (C)



Sport & Society