

**Examining the Impact of
Greenhouse Sports
Programmes in Schools**



**Loughborough
University**

A Scoping Study to
Inform Future Research

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Autumn 2017

Independently reviewed by

PRO BONO ECONOMICS



**Greenhouse
Sports**

FOREWORD BY MATTHEW SYED

I am grateful to have been involved in sport for the past 40 years, as a player, spectator and, now, writer. I have learned that the benefits of sport - when coached in the right way - can be huge.



Sport is a powerful tool for developing habits, values and life skills in individuals that can help to overcome disadvantage.

Participation can instill discipline, focus and team work, while raising aspirations and self-confidence. I am lucky to have experienced these benefits from a young age, and this is what inspired me to get involved with the amazing work of Mike de Giorgio and Greenhouse. Too many young people are unable to access high quality coaching and sports participation, particularly those living in disadvantaged communities. Sadly, many young people have bad experiences of sport.

Greenhouse Sports coaches provide consistent and thoughtful coaching to

young Londoners. At the core of their work is a fundamental belief that each young person deserves the best chance in life. Steady and often intensive coaching reinforces this message and helps build both sporting and life skills. Young people also develop passion for the sport, and that kernel of self-belief that is so important for life. We want all of our youngsters to leave our programmes with renewed resilience and purpose.

I am delighted Greenhouse Sports has begun the journey to provide empirical evidence for the benefits - physical and psychological - that sport can provide for young people. Those of us who live it and breathe it intrinsically know these truths, but there is no substitute for independent evaluation.

FOREWORD BY SIR ALASDAIR MACDONALD

Morpeth School, where I was Head Teacher for over 20 years, is typical of many schools in inner-city London with a diverse pupil population, many of whom come from difficult and economically disadvantaged backgrounds.



Even as late as the turn of the century it was common to find schools with low aspirations and expectations but there has been significant change - at Morpeth, we saw attainment at age 16, the 5A*-C measure, rise from 9% to over 70% between 1992 and 2015.

We were, and the school still is, determined to address childhood inequalities. The improvement mentioned above was achieved partly in the classroom but also through a range of other strategies that supported their learning. In contrast to our pupils, children from middle class families benefit from educational and social capital provided at home - they will have been given opportunities to partake in experiences to develop them as rounded individuals

and broaden their horizons. We wanted to recreate as much of this as possible for pupils at our school so we worked in partnership with a range of organisations to provide the opportunities and mentoring support that our students' more affluent peers take for granted. One such support was a full time Greenhouse Sports table tennis programme, which offered mass participation opportunities as well as world class coaching for the more dedicated. Participation taught our students to set high standards, be disciplined and work effectively as a team. As a result, we saw their confidence increase, their aspirations rise and dedication to their work improve. The programme gave many pupils, who might have become disengaged and disaffected, a reason to come to school. In addition there was a benefit we had not anticipated - becoming one of the top schools in England for table tennis gave the whole school community a lift.

Schools are under continuous pressure to achieve results in a time when budgets are being cut to unprecedented levels. There is a huge risk that the curriculum for children from disadvantaged backgrounds will be seriously reduced and narrowed. In this climate, decisions about what is kept and what is cut are increasingly difficult, and need to be based on solid evidence that demonstrates the contribution of any programme to the overall development, aspirations and skills of the child. Therefore, I am very pleased to see Greenhouse Sports taking a lead in independently evidencing their impact and working in partnership with schools to ensure we are both driving towards the same positive outcomes for the next generation.

“
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SCOPING STUDY ON GREENHOUSE SPORTS

In 2016-17, Greenhouse Sports worked with Loughborough University researchers to scope the impact of our programmes and hopefully identify the full breadth of what a Greenhouse Sports intervention can do.

We asked ourselves some challenging questions to get to the heart of our programmes. Do we support the emotional development of the young people we work with? Do we contribute to their educational attainment? What do our schools really think of us?

The research was conducted over six months in 2017 and robustly reviewed by Pro-Bono Economics and we thank them, along with NHS England for helping make this scoping study possible.

Greenhouse Sports is a London-based charity that uses sport to engage young people and improve their life chances. We partner with schools, embedding coaches full time into the school environment to deliver high-quality, intensive programmes that empower and inspire young people growing up in disadvantaged areas.



“ The key central message to take from the analysis is that there is widespread evidence that engagement with Greenhouse Sports raises attendance and academic performance, and achieves positive behavioural change.

Loughborough University ”

WHAT WERE THE FINDINGS?



Mental Health

95% of schools report issues relating to stress and anxiety amongst their students. Full time sports coaching and mentoring, provided by Greenhouse Sports, promotes positive mental wellbeing in young people, helping them engage in school, build confidence and make new friends. Sport also provides opportunities for students to de-stress and have fun, which contributes to increased happiness at school.



Physical Health

Only 16% of London's young people meet the recommended standards for physical activity. The percentage of Greenhouse Sports participants who exceed the recommended levels of daily activity is higher than this in all four of the case study schools, offering a solution to inactivity issues and associated physical ill health. Positive experiences of sports also encourage participation in the longer term.



Life Skills

Essential skills required for life, such as teamwork, communication, leadership, self-discipline, commitment and resilience, are developed through Greenhouse Sports high quality programmes.



Educational Outcomes

This research shows that engagement in intensive sport at school, through the Greenhouse Sports model, can increase pupils' attendance and attainment. In one participating school, attending the programme raised attainment by a third of a grade in English and 40% of a grade in Maths.

GREENHOUSE SPORTS 2016-17 AT A GLANCE



40 programmes in secondary schools



9 Special Educational Needs programmes



Delivered almost 50,000 hours of coaching



Coaches reached over 7,000 young people



6 sports



ABOUT THE RESEARCH

Why was the research commissioned?

To independently and broadly examine the impact of Greenhouse Sports school-based programmes on individual participants and on wider school culture.

What was investigated?

The aims of the scoping study were to:

- 1 Examine stakeholder views of the impact of Greenhouse Sports provision in schools.
- 2 Identify how and why Greenhouse Sports programmes work in schools.
- 3 Identify better ways of demonstrating the impact of Greenhouse Sports' programmes, using existing information collated by schools.
- 4 Scope a longer term quantitative study involving comparative/control schools.

How was the research conducted?

Four well established case study programmes (delivery 3+ years) were selected covering a variety of sports, locations and types of school.

Qualitative interviews were conducted with:

- Head Teachers
- Heads of PE
- Greenhouse Sports Coaches
- Participants

Quantitative school data was analysed for differences between and within the data from the previous three years. We looked at:

- Attendance
- Behaviour
- Academic attainment

Research Limitations

This is a small-scale scoping study asking specific questions about the type of impact Greenhouse Sports programmes can have. Participating schools had well-established Greenhouse Sports programmes, and very strong relationships existed between the schools and the charity.

Greenhouse Sports understands that this does not provide evidence across all programmes. Coaches, school priorities, relationships and sports all vary across programmes. This independent research is part of the journey of exploring and evidencing what positive outcomes Greenhouse Sports' programmes achieve for beneficiaries.

This piece of research has proven that there is a relationship between attending intensive sports programmes and educational outcomes, but does not yet prove why. It is not yet understood if there are specific elements of the programmes that contribute most, whether certain types of young people respond better to the programmes than others, or whether there is an optimum engagement level to achieve these outcomes.

The schools

The table below outlines the general characteristics of the schools who participated in this research, and in some instances compares them with national average data.



	School A	School B	School C	School D	National Average
Ofsted Rating	Requires Improvement	Outstanding	Outstanding	Outstanding	-
No of pupils on roll (2015-16)	668	1104	1352	1749	-
Pupils whose first language is not English (2015-16)	26.2%	54.8%	79.6%	24%	15.7%
Pupils eligible for free school meals (2015-16)	70%	55.6%	71%	42.5%	29.3%
% of participants from BAME	72%	69%	96%	85%	-
Overall Absence*	7.1%	4.1%	3.8%	4.4%	5.2%
No of students engaged	160	277	68	206	-
Engagement Hours	15,773	14,201	3868	10,156	-

* Overall Absence - Percentage of possible mornings or afternoons recorded as an absence from school for whatever reason, whether authorised or unauthorised, across the full academic year.



Next Steps

Further research will investigate:

- The consistency of the Greenhouse Sports model
- Which specific elements of delivery lead to desirable outcomes for young people
- How Greenhouse Sports programmes affect the different profiles of young people who attend

The intent is to look at a broader range of schools, analyse larger data sets, including data from non-Greenhouse Sports schools, and compare data across schools.

 The following are excerpts from Loughborough University research into the impact of Greenhouse Sports

MENTAL HEALTH

The World Health Organisation (2013) estimates that 20% of adolescents worldwide will experience a mental health problem in any given year.

95% of school teachers indicate that they frequently face issues relating to stress and anxiety amongst their students, with 58% of teachers stating that they deal with mental health problems at schools 'at least monthly' (Parent Zone, 2016). 84% of these teachers believe they lack adequate resources to cope with pupil mental health issues.

Mental health is recognised as a priority area for Greenhouse Sports and all coaches are Mental Health England First Aid trained. The Greenhouse Sports programmes are perceived to be valuable for schools in terms of the contribution they provide in managing this issue.



“ We started doing after school classes, and that got to a habit... the amount of times I play tennis is just unbelievable. And I would never think I would have done it without [coach] or even just coming to the school with Greenhouse. ”
Tennis participant



PHYSICAL HEALTH

Individuals are not likely to begin participating in sport if they have not participated in the past, underscoring the importance of getting youth involved in sport activities so that they can develop life-long sporting habits (Perkins et al., 2004).

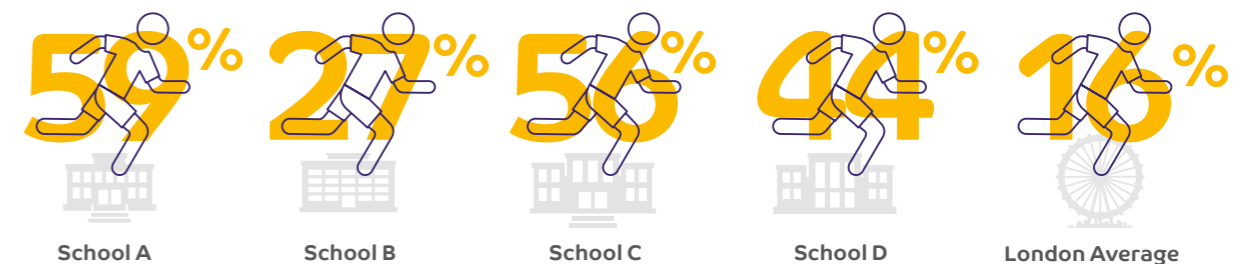
Greenhouse Sports programmes contribute to an increase in the daily activity levels of participants. The percentage of students engaged in Greenhouse Sports who exceed 60 minutes per day of physical activity is considerably higher than the London average (16%) in all four of the case study schools.

“ Say, if you're stressed, just play basketball ...you're letting out everything, when you're shooting, you're letting out everything. You get aggressive, [but] you're not angry, you feel like you're releasing it all. ”

Basketball Participant



GREENHOUSE PARTICIPANTS EXCEEDING 60 MINUTES* OF PHYSICAL ACTIVITY PER DAY



* Department of Health Target



LIFE SKILLS

Qualitative interviews with students and school stakeholders were positive about the impact of the sports programmes on developing participants' social skills.

Both students and staff recognised that the skills developed through sport were transferable to everyday life and essential to help young people fulfill their potential.

Interviewees believed that sporting opportunities are a powerful medium through which transferable skills can be learned, and this was considered particularly important for some students who may have very limited opportunities elsewhere in their lives to develop these skills.

Self-Discipline

'The coach is very strong in instilling discipline, and you know I'm a strong believer in sport...the qualities transcend to real life, commitment, discipline, relationships, all those things are very important in life, and some of the kids really struggle with those things. If it wasn't for sport and wasn't for Greenhouse, they wouldn't have people who listen to them, give them advice and encourage them... they don't always have that at home.' Head Teacher

Confidence

'I think if you walked around the school at lunchtime, I reckon you'd be able to pick out who the sports people are in the school... You'd see the confidence, you'd see the way people look up to them. And you would probably go and have a look at their school work and say, this work's on point.' Head of PE

Leadership

'We work a lot on leadership skills, [participants] taking seven minutes of warm-up, seven minutes of training session element, certain responsibilities within games, then the others follow.' Head of PE



“

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Loughborough University

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EDUCATIONAL OUTCOMES

Attendance

Analysis of school attendance data showed that there was a significant difference in attendance between those who attended the Greenhouse Sports programme consistently and those that didn't.

The number of additional school days Greenhouse Sports participants attended, compared with their peers from the same school, varied across the schools from 3.5 days to over 10.

This finding was also corroborated by interviews with school staff who commented that for some students their involvement with the Greenhouse Sports programme had resulted in them being able to remain in the school at a time when their future there looked uncertain. In many cases, there was a strong likelihood of students being excluded, which would have resulted in significant costs for both the school and the student concerned.

'Greenhouse might be the only reason that they come to school!' Head of PE

'I could name four off the top of my head that are attendance [issues], and four or five that were behaviour concerns... the school would have lost money getting rid of them somewhere else, and by retaining them, the school saved money and probably saved the kid's life because they would have

gone to a Pupil Referral Unit... And that's all because we've got Greenhouse coaches in the school.' Head of PE

Attainment

There is widespread evidence that attending Greenhouse Sports programmes raises attainment. All schools analysed showed significant positive difference in academic attainment in comparison to their non-attending peers.

In one school analysed, attending a Greenhouse Sports programme consistently* raised attainment by a third of a grade in English and 40% of a grade in Maths.

Interviews with staff indicated that students who engaged in the sports programmes over a long time period learned valuable lessons about hard work, persistence and time management. Some students experienced success in sport as a result of their persistence and then became more motivated in their studies because they had realised the benefits of working hard.

Interviewees believed students developed a range of skills and abilities through their involvement in sport which enhanced their ability to be more effective learners regardless of their reasons for being involved in Greenhouse Sports. As a result of becoming more effective learners, students achieved better grades.

'But truly I think giving kids a responsibility is something that schools are really fearful to do. And we give these kids the responsibility of you're going to go to another school, but you're representing the school. And once you give them the responsibility and they take it and they hold on to it, they grow, they mature.' Head of PE

Behaviour

Where the behavioural issues are most challenging, and students are on the verge of being permanently excluded, Greenhouse Sports can be one of a very limited number of available tools to re-engage students, allowing them to build positive relationships with an adult in school through their engagement in sport.

'We have had a small number of students where, I think the only reason they're still here is because they've had that input and that steady support and approach.' Head Teacher

'There are students who really struggled and then, you know, have been on an intensive programme of mentoring, and we do notice a difference.' Head Teacher

*Consistently = An average of at least 1 session per week and 1 hour per week, over at least 30 weeks.



**Greenhouse
Sports**

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