

THE IMPACT OF PHYSICALLY ACTIVE LESSONS IN THE CLASSROOM

Gareth Jones and Ian Pickles [afPE Business Associate]



Sheffield Hallam University | Centre for Sport and Exercise Science

INTRODUCTION

The Chief Medical Officer (CMO) for the UK recommends that children and young people should achieve a minimum of 60 minutes of moderate to vigorous physical activity (MVPA) each day (30 minutes at school and 30 minutes at home). This is a minimum requirement and the CMO guidelines suggest children should be active for up to several hours a day. National evidence from the Health Survey for England (HSE, 2015) suggests that only 22 per cent of children and young people aged 5-15 years of age are meeting the current physical activity guidelines, with boys being more active than girls (23 per cent and 20 per cent respectively). Moreover, physical activity typically declines with age (NHS Digital, 2016), and 40 per cent of children aged 5-15 years are classified as being in the 'low activity' group, meaning they were participating in less than 30 minutes MVPA per day. This potentially has many physical, mental and social health issues. In line with this, the Department of Health also highlights the importance of reducing sedentary time for extended periods (Department of Health, 2011), as sedentary time is an independent risk factor for ill health. This is important as evidence also suggests that health habits within childhood, such as physical activity or sedentary behaviour, are predictive of adult health habits (Telama, 2009), thus an active child is likely to lead to an active adult.

In the school setting, there is more and more evidence to suggest that children who are active benefit from improved confidence, peer-acceptance and self-esteem, reduced anxiety and stress, and even improved attention/concentration, cognitive functions and academic achievement (Chalkley, Milton and Foster, 2015). However, during a typical school day there are sustained periods of sedentary behaviour where physical activity could be introduced (i.e. lesson time).

THE STUDY

It is clear that the benefits of physically active learning are recognised at the highest level but what is the real practical impact on children and teachers? The National Centre for Sport and Exercise Medicine wanted to understand the benefits of physically active lessons on pupils' physical activity and behaviour, as well as investigating how a programme impacted on teacher confidence and knowledge to teach active lessons. They chose to work with imoves, as it has a widely used physical education (PE) and active school platform, used in over 600 schools across the UK. The purpose of the project was to evaluate the impact of the imoves programme by identifying if imoves affected pupil physical activity at school. It also looked at secondary outcomes such as pupil behaviour and teacher confidence. Two primary schools in Sheffield, with a total of 123 pupils, participated in the study. They were evaluated at two different stages to track progress and compare results. The children were assessed at two points in

time using accelerometers to understand how much activity was happening within a lesson and across the school day. There were also qualitative interviews to understand the impact on the children and teachers involved.

RESULTS

ACTIVITY LEVELS

The imoves programme had a positive impact on overall pupil physical activity, MVPA and sedentary behaviour, whilst having the largest impact on those who were least active. The programme enabled the previously least active pupil to become just as active as the most active pupils.

Figure 1 shows the levels of activity over a whole school day with the intervention group achieving their 30 minutes of school-based activity as a result of using imoves, rising from less than 20 minutes to over 30 minutes.



Figure 1: Baseline and follow-up control and intervention total activity means (95%CI)

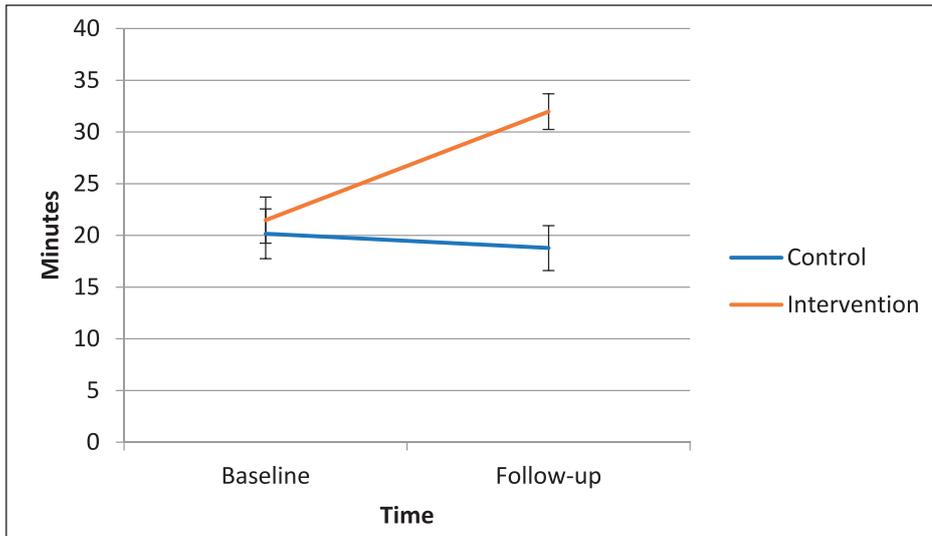


Figure 2: Baseline and follow-up control and intervention MVPA means (95% CI)

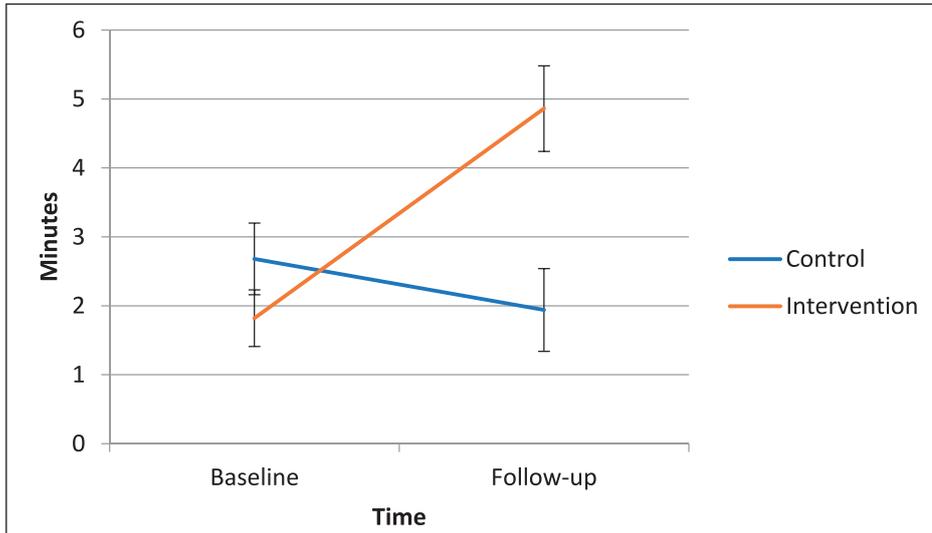


Figure 2 shows the improvement in MVPA in a lesson, with a nearly three-minute difference between the groups in one lesson.

The most surprising aspect of the research showed in the results from tertile analysis, shown in the table below, where we looked at the difference for the most and

least active groups. The least active third increased their MVPA from baseline to follow-up by 3.99 minutes, and the most active third increased their MVPA from baseline to follow-up by 0.9 minutes. This shows that a physically active lesson completely closed the gap between the most and least physically active, not just in a lesson but across a whole school day.

		Whole day PA (minutes)	Difference (minutes)	Acute lesson PA (minutes)
Baseline	Least active tertile	20.42	8.72**	0.51
	Most active tertile	29.14		3.61
Follow-up	Least active tertile	28.14	3.8	4.5
	Most active tertile	31.94		4.51



This is significant for schools as a key objective for the Primary PE and Sport Premium funding is that all children are active. This study shows that imoves helps schools to achieve exactly that by bringing all children's activity levels in line with one another.

OTHER BENEFITS

The study's findings also support that an increase in physical activity during lessons had a beneficial role in pupil behaviour across the school day, particularly when it came to 'works and plays co-operatively with other children'.

A male pupil from School 2 had this to say about his experience with imoves: "I would be actually really excited to come to school because the lessons would be a lot more fun and you could move around, and it would be better than just sitting down." A female pupil from School 1 also added: "It would make me feel better because I like learning but hate sitting down."

From the study, teachers advised that imoves has helped to build their confidence to teach an active lesson, as well as increase their knowledge of opportunities to improve pupils' levels of physical activity and how to plan it into lesson time. Here is what a teacher from School 1 had to say:

“...so much more confident now; I used to be really like I don't want to do it, I just want a normal lesson, sit down and be quiet, but now I know that doesn't really always work, especially if you're doing it all day every day... They need to be up and out of their seats, and it makes the kids happier, it makes me happy and it ends up being a bit more of a calmer environment, even though they're up and they're happy and being a bit louder than normal, it's a nice environment to be in.”

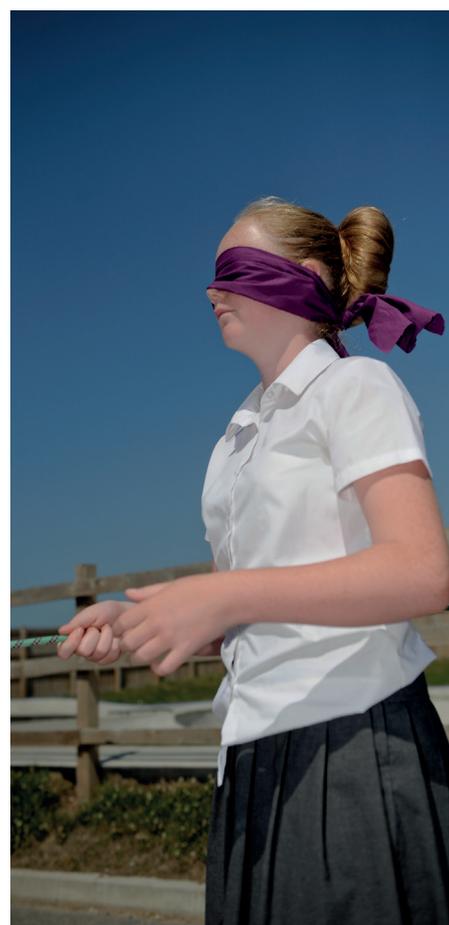
The report concluded that the imoves programme was found to be viewed favourably by both pupils and teachers, stating that the resources were “fun, engaging, made learning easier, created a nice environment to teach in and excited pupils to come to school”.

SUMMARY

The National Centre for Sport and Exercise Medicine concluded:

“...it is recommended that schools seek to utilise active lessons and the imoves programme due to the current evidence and positive benefits that occur as a result of being active during curriculum time.”

For a copy of the full report, email enquiries@imoves.com



To try imoves for free, and to see the impact active learning can have on your classroom, visit the website for a free trial – www.imoves.com

REFERENCES

- Chalkley, A., Milton, K., Foster, C. (2015). Change4Life Evidence Review: Rapid evidence review on the effect of physical activity participation among children aged 5 – 11 years. London: Public Health England.
- HSE (2015) Health Survey for England 2015 physical activity in children. Retrieved September, 2018 from: <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/health-survey-for-england-2015>
- NHS Digital. (2016). *Health Survey for England 2015*. London: NHS Digital Retrieved from <http://content.digital.nhs.uk/pubs/hse2015>
- Telama, R. (2009). Tracking of physical activity from childhood to adulthood: a review. *Obesity facts*, 2(3), 187-195.

Dr Gareth Jones is the principal investigator for the imoves evaluation. Gareth works for Sheffield Hallam University, within the Centre for Sport and Exercise Science. Ian Pickles is the Chief Executive Officer for imoves.

IMOVES WINS BETT AWARD

imoves

bett
AWARDS 2019

I am delighted to announce that imoves won the award for best ‘Whole School Aid for Learning, Assessment and Teaching’ at the Bett Awards 2019 in January. These are Europe’s largest EdTech awards and the judging panel consisted of professionals from across the education sector. The feedback from the panel was that, “imoves is an easy way to integrate activity across the school day, with resources of the highest quality and bringing to life the benefits of getting children active for whole school improvement”.

This is a huge deal for us as it shows the education sector does recognise imoves as one of the most innovative resources for whole school improvement. Even more importantly, it is great for our industry. The Bett Awards cover every aspect of education and seek to find the world’s leading educational technology solutions. For a physical education and activity platform to win this award speaks volumes. It shows that the need to get children more active is becoming a mainstream objective for schools, with ever more evidence emerging that shows how activity has a direct impact on pupils’ behaviour, focus and attainment as well as creating happier and healthier learners. Furthermore, the new draft Ofsted inspection framework means schools will be inspected on what they’re doing around activity and wellness – a major driver for head teachers to do something about this.

As an industry we need to make physical activity the norm within our schools, and this award has highlighted that the imoves programme is a great way to achieve school improvement through active learning.

