Technical Appendix

Sports participation[i]

Low impact for moderate cost, based on limited evidence

Definition

Sports participation interventions engage pupils in sports as a means to increasing educational engagement and attainment. This might be through organised after school activities or a programme organised by a local sporting club or association. Sometimes sporting activity is used as a means to encourage young people to engage in additional learning activities, such as football training at a local football club combined with study skills, ICT, literacy, or mathematics lessons.

Search Terms: extracurricular activities; extracurricular programs; school club; sports/athletic participation; out of school activities, non-academic school activities; leisure/recreation activities

Evidence Rating

There are two meta-analyses and one systematic review with effect size estimates suggesting that the impact of engaging in sports tends to be positive, but low. Two of these have been conducted in the last ten years. This evidence includes observational studies and there is only limited research with strong causal inference. There is evidence from the UK that sports and learning participation can have a more dramatic effect on, for example, mathematics learning as assessed by standardised tests when combined with a structured numeracy programme (with one study showing an impact of up to ten months' additional progress). Overall, the evidence is rated as limited.

Cost Information

Cost are estimated at about £300 to £400 per pupil per year excluding clothing, equipment, and travel costs. These costs vary according to equipment, venue, and group size. There would also be a difference in cost between providing sports activities on school premises, and pupils attending existing provision. Overall, costs are estimated as moderate.

References

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Summary of effects

Meta-analyses	Effect size	FSM effect size	
Lewis, C.P. (2004)	0.1	-	
Newman, M., Bird, K., Tripney, J., Kalra, N., Kwan, I., Bangpan, M., Vigurs, C. (2010)	0.19	-	Academic outcomes
	0.8	-	Mathematics
Shulruf, B. (2010)	0.15	-	(on GPA)
Single Studies			
Median effect size	**0.17**		

Meta-analyses abstracts

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Lewis, C.P. (2004)

There has been a growing discussion in the fields of education and psychology about the relationship between social skill proficiency and academic excellence. However, the presence of extracurricular involvement as promoting both academic and social development has not been thoroughly explored. The most recent literature syntheses and meta-analyses on extracurricular activity participation were conducted in the 1980.s. An updated review and quantitative look at the participation literature is due. The purpose of this study is to integrate participation studies from the 1990s and give summative information as to the impact of extracurricular activity participation on various educational and psycho-social characteristics. Of the 164 identified studies, 41 were included in these meta-analyses. The current analyses produced 6 different activity categories: general extracurricular activity, sports, work and vocational activities, performing arts, pro-social activities, and community-based activities. The current meta-analyses suggest student outcomes were significantly related to general extracurricular activity and pro-social activity participation. General activities and pro-social activities had the most

impact on academic achievement, while performing arts and pro-social activities. Participants reported the largest effect on identity and self-esteem related outcomes. Sports and related activities (i.e. Cheerleading) were not as strongly linked to academic achievement indicators as anticipated and student workers had more negative outcomes than any other activity participants. In conclusion, the best outcomes for children and adolescents are brought about through well-built, developmentally appropriate structured activities. Moreover, the academic and social profits of extracurricular activities that have been examined in this study can be used to inform program planning and implementation.

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Newman, M., Bird, K., Tripney, J., Kalra, N., Kwan, I., Bangpan, M., Vigurs, C. (2010)

The Culture and Sport Evidence (CASE) programme was set up by the Department for Culture, Media and Sport (DCMS) in 2008. The programme aims to generate strategic evidence that will be used to inform the deployment of public funds to maximise engagement in sport and culture, and the value citizens in England receive from that engagement. The EPPI-Centre (Institute of Education, University of London) and Matrix Knowledge Group were commissioned to investigate the drivers, impact and value of engagement in culture and sport. The project used systematic review, analytical and statistical modelling techniques to begin to understand why people engage, or do not engage, in cultural and sporting activities, the benefits they obtain from that engagement, and the potential value to them, and to society as a whole.

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Shulruf, B. (2010)

Secondary schools tend to sponsor a large number of extra-curricular activities (ECA) yet little is known about their contribution to students' educational outcomes. This meta-analysis aims to determine what it is about ECA participation that supports positive educational outcomes. Furthermore, this study challenges the theoretical assumptions about the benefits of participation in ECA. 29 studies (all except for one based on data collected in the United States) met the search criteria for inclusion in the analysis. Most effect sizes on academic achievements yielded from non-specific ECA, academic clubs and journalism were small, as were participation in performing arts, sports and leadership activities on a range of educational outcomes. Although the results show associations between participation in ECA and educational outcomes, causal effects could not be confirmed. It is concluded that the lack of evidence supporting the causal effects, and thus the common theoretical assumptions about the effects of ECA on educational outcomes, is due to methodology limitations in these studies.