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An Intervention to Facilitate 'High Quality' Physical Education – From Gymnastics to Athletics

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Introduction

The summer edition of Research Matters included a short article on facilitating 'high quality' physical education and 'high quality' gymnastics in a city school (see Cale et al., 2011). The article provided a summary of the first phase of a research project which aimed to: i) facilitate high quality teaching and learning in physical education, and ii) identify key principles that contribute to high quality outcomes and which could be applied across the physical education curriculum. This article follows on and presents a summary of phase 2 of the research, which focused on athletics, as well as of the key findings and recommendations from the project overall.

As noted in the previous article (Cale et al., 2011), high quality physical education should be an aspiration for all schools and is considered to be important for many reasons, not least because it may help young people to make informed lifestyle choices and encourage lifelong participation in physical activity (Kay, 2005; Kirk, 2005; Haydn-Davies, 2005; Morgan, Kingston & Sproule, 2005). Moreover, the introduction of the Physical Education School Sport and Club Links Strategy in 2003 (DfES & DCMS, 2004) and then the Physical Education and Sport Strategy for Young People in 2008 (www.teachernet.gov.uk/pe/) further heightened and highlighted the importance of regular participation in high quality physical activity, physical education and school sport. At the core of both strategies was the drive to increase young people's participation in high quality physical education and school sport.

Concern and interest in the above context triggered a local secondary school to approach researchers at Loughborough University to ask for support in the provision of high quality physical education. Through a preliminary meeting between the researchers and physical education staff, the particular needs of the department and the priority areas for intervention were established. It was agreed that the initial phase of the research project should focus on facilitating high quality teaching and learning in gymnastics, whilst athletics should be the focus of phase 2. Athletics was chosen because department staff felt that both teachers and pupils were relatively dissatisfied with and uninspired by the existing athletics teaching within the curriculum.

The School

The school was a mixed, city school and specialist sports college, with approximately 950 pupils aged 11-18. The number of pupils eligible for free school meals and with special educational needs was above the national average. The school context at the time of the research was also interesting because the school had just received an unsatisfactory Ofsted report. Thus, the research took place amongst whole school efforts to make rapid improvements in teaching and learning across all subjects.

The Project

Prior to embarking on the project, full ethical approval to conduct the research was gained from the university's ethical advisory committee. Phase 1 of the research then involved defining what high quality physical education meant in practice. The document '*High Quality PE and Sport for Young People*' (DfES & DCMS, 2004) was used to guide and

inform this definition. This document defines high quality physical education, provides guidance on how schools can achieve it, and contains descriptions of ten outcomes of high quality.

Drawing on the experience in working with gymnastics during phase 1 of the research, an intervention to facilitate high quality teaching and learning in athletics was designed. In so doing, the same main factors were taken into account. Firstly, the teachers' and pupils' views were considered. This involved conducting teacher interviews and pupil focus groups to identify how athletics was currently being taught and what the teachers' and pupils' feelings, wants and needs were in relation to the area. Regarding the latter, for example, the teachers were asked what support they felt they needed and the pupils were asked what they enjoyed, what they did not enjoy, and what they might like to do differently in athletics. Secondly, the DfES/DCMS guidance plus the literature on physical education teaching 'theories' (such as Hellison & Templin, 1991; Mawer, 1995; Hardy & Mawer, 1999; Siedentop & Tannehill, 2000; Mosston & Ashworth, 2002; Silverman & Ennis, 2003; Metzler, 2006; Bailey, 2010) provided information on what might constitute 'high quality' or effective teaching and learning, and how 'high quality' in physical education could be achieved. Additionally, lessons learned from phase 1 of the research concerning, for example, the nature, behaviour and responses of the pupils, as well as the particular practical constraints the department faced in teaching athletics were considered.

From these two areas of analysis, a unit of work with associated learning activities was produced and implemented. This incorporated a number of teaching strategies aimed at improving motivation, enjoyment and attainment in athletics. The teaching materials were then evaluated via the collection and analysis of data from a variety of complementary sources. These included lesson observations, lesson evaluations, pupil focus groups, teacher interviews, and teachers' personal journals. Comparisons were made between the teachers' and pupils' pre- and post-unit responses and high quality outcomes were identified from the lesson observations. Based on this, the success of the unit and learning activities was established and recommendations were identified.

Phase 2 Findings

As with phase 1, the data from phase 2 of the project highlighted a number of areas where the unit of work and associated learning activities had been successful. The findings were numerous but the key findings are summarised in table 1.

Table 1 - Summary of the Key Findings from the Athletics Intervention

Teachers	Pupils
The unit and learning activities were well received and staff reported them to meet their expectations and to be very good, thorough and comprehensive. The teachers were unable to identify anything that they wanted to improve/change about the content.	The unit had a positive impact on the pupils' understanding, attitudes and enjoyment of athletics. The girls in particular appeared to have enjoyed and were positive about their athletics experiences.
The unit had a positive impact on the teachers' confidence and confidence to teach high quality athletics lessons, and on their enjoyment of teaching athletics.	Both the boys and girls felt they had been given opportunities to take on other roles and the girls reported they had been given more opportunities to make more decisions during their athletics lessons.
In terms of National Curriculum coverage, the teachers perceived they gave most	To varying degrees, the teachers felt that

<p>attention to the following key concepts and processes in their delivery of the unit: performance; developing skills in physical activity; making and applying decisions; and evaluating and improving.</p> <p>The teachers' coverage of healthy active lifestyles and making informed decisions about healthy, active lifestyles appeared to be more limited, rather narrow, and tended to be restricted to warming up or encouraging pupils' participation.</p>	<p>the unit had a positive impact on the pupils' progress in relation to the high quality outcomes.</p> <p>A number of outcomes (relating to performance, participation, enjoyment, commitment/attitude) were achieved by at least half or more of the pupils at the end of the unit.</p> <p>The girls showed steady progress towards the outcomes throughout the unit with most being achieved by the end, whereas the boys achieved a similar or slightly fewer number of outcomes by the end.</p>
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Overall Findings

The findings from phase 1 and 2 of the project were also considered collectively to evaluate the overall impact of the research. The key findings are summarised in table 2.

Table 2 - Summary of the Overall Findings

Teachers	Pupils
<p>The teachers involved in the project felt that it had been of benefit to them.</p> <p>The majority of the teachers thought that the project had changed their teaching styles.</p> <p>The teachers reported that the project had changed the way they thought gymnastics and athletics should be taught. For example, they reported that they:</p> <ul style="list-style-type: none"> • had more ideas (and had enjoyed trying new ideas) • had moved away from more traditional methods of teaching • provided pupils with more opportunities to take on roles other than that of a performer. <p>The teachers felt that their participation in the project had helped them to understand what high quality teaching and learning meant.</p> <p>Most of the teachers felt that the project had been of benefit to the physical education department, stating that there was now more:</p> <ul style="list-style-type: none"> • sharing of good practice 	<p>The project had a positive impact on the pupils' understanding, attitudes and enjoyment of both gymnastics and athletics.</p> <p>The girls were generally more positive about their gymnastics and athletics experiences than the boys.</p> <p>To varying degrees, the teachers felt that the units had a positive impact on the pupils' progress in relation to the high quality outcomes.</p> <p>A number of outcomes (relating to performance, participation, enjoyment, commitment/attitude) were achieved by at least half or more and, in the case of gymnastics, by most of the pupils at the end of the units.</p> <p>As the project progressed from phase 1 to phase 2, both the boys and girls were given more opportunities to take on other roles and the girls were given more opportunities to make more decisions during lessons.</p>

- experimentation with new teaching approaches
- continuity and consistency between classes.

Most of the teachers believed that the project had not been of direct benefit to the school more widely.

Issues

Perhaps not surprisingly, some of the issues that were faced by the research team in conducting phase 1 of the project were also encountered during phase 2. These included pupil behaviour, the effectiveness of introductions/plenaries, the complexity of the change process, the environment and resources, as well as general research constraints such as logistics and time.

Recommendations

From the above, a number of recommendations were made to further facilitate the achievement of high quality physical education generally, and athletics teaching specifically, within the school. Some of the recommendations were similar to those made following phase 1 whilst others were unique to this phase. As before, some were also quite specific to the particular school and department context. However, it is the general recommendations that are perhaps of most relevance here. These included:

1. To make some elements of the unit more explicit to pupils (for example, by raising pupils' awareness as to when they are/have been involved in evaluating, decision making and problem solving within lessons highlighting specifically when this occurs).
2. To incorporate even further opportunities for pupils to be involved in evaluating their own and others' performances, decision making and problem solving during the unit.
3. To broaden the coverage of 'healthy, active lifestyles' and 'making informed decisions about healthy, active lifestyles' to move beyond a focus on warming up and participation.
4. To build on and further develop the effective use of ICT that was clearly evident in some lessons. *Please note that the use of more ICT within lessons was a recommendation made following phase 1 and which the teachers subsequently made a concerted effort to implement during phase 2.*
5. To strengthen the cross-curricular links identified within the learning activities in terms of establishing specific communication/links between subject areas (such as IT, PSHE and Science).
6. To make the relevance of the learning activities more explicit to pupils at times and to provide more authentic contexts for learning in athletics. *Please note that, due to time constraints, a final athletics event within the unit was not covered which meant an important opportunity to make the pupils' learning authentic was missed.*
7. To make athletics more relevant for pupils by promoting and increasing the activity beyond school (for example, by raising pupils' awareness of the athletics opportunities that are available within the local community).

Finally two key recommendations were made based on the research project overall which were:

1. To apply the principles employed within the project in developing the gymnastics (phase 1) and athletics (phase 2) units and learning activities across year groups and other practical activities.

2. To disseminate the details and findings of the project to colleagues in other departments in an effort to generate whole school discussion and enable it to have wider benefit beyond the physical education department.

Summary

The findings from phase 2 of this project highlight that, despite some issues and variations in outcomes, the intervention had a positive impact on teaching and learning in athletics. Indeed, and possibly due to lessons learned along the way, it could be argued that this phase was equally or even more successful in some aspects than phase 1. When the findings from both phases are considered collectively, a number of positive outcomes on teaching and learning are evident suggesting that overall the project was successful in facilitating high quality teaching in both areas (gymnastics and athletics).

If the department staff are able to address the above recommendations, and in particular the final two key recommendations, then the project could have even wider benefit. For example, it could lead to greater understanding of high quality teaching and application of the principles that contribute to high quality outcomes across the whole school and curriculum.

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