

## Rethinking IT in physical education: Pedagogy before technology

**"The possibilities are endless; what is needed is imagination"**

*Fernández-Balboa (2003)*

In considering the future of physical education it is clear that Fernández-Balboa saw the near limitless possibilities for teaching and learning in physical education in the digital age. However there is little to suggest that information technology (IT) is revolutionizing the education of the youngsters in schools today. When we are preparing students for jobs that don't yet exist, using technologies that haven't yet been invented in order to solve problems that we haven't identified as problems yet (Richard Riley, former US Secretary of Education), the place of IT seems unquestionable and yet it seems to be conspicuous by its absence or *ad hoc* use (Fullan, 2013).

In the UK the Government's inspectorate (OfSTED) has concluded that few schools routinely use IT in physical education (OfSTED 2009). More worryingly they also suggested that, of those schools that do use IT, only one in ten use it purposefully to engender student interest or to support learning (OfSTED, 2009). At the time of 'technological explosion', where market leading innovation is measured in months rather than years, the noted practices of teachers suggest that the use of music players and cameras (for both still image and video analysis) is still the pinnacle of IT use in schools (Casey and Jones, 2011).

While there are certainly exceptions to this (and I would bring the reader's attention to the work of three PE teachers on twitter as examples among so many others @JoeyFeith @MrRobbo and @AndyVasily) the bulk of evidence would suggest that technology is not a pedagogical tool in physical education. Yet the 'problem' isn't a core infrastructure issue and is rather one of pedagogical development and intent. Indeed, as Greenhow, Robelia, and Hughes (2009) recently reported, access to a technological infrastructure is not a wide spread issue:

- By 2014 an estimated 90% of all people in the US will be online with dramatically faster, high-speed networks.
- 90% of school-age youth use the Internet, with adolescents ages 12-17 representing the largest and fastest-growing group of users.
- The majority of teenagers go online daily or several times a day, mostly from home.

With the infrastructure in place it seems to come down to teachers' readiness (both personally and professional) to use technology to further their students' learning. Indeed, as Clark (1995) holds, "teachers are the human point of contact with students. All other influences on the quality of education are mediated by who the teacher is and what the teacher does" (p. 3). However the use of technology in schools remains limited. Fullan (2013) argues that the digital lives of children are haphazard and occur either outside of the classroom (in the free spaces around school) or more significantly beyond the school gates but not in lessons.

Technology is increasingly being positioned as a modern necessity. Indeed, Watson (2001) suggested that technology is often seen as a catalyst for change in (a) teaching style, (b) learning approaches, and (c) access to information. Yet, 'the speed at which such tools are introduced into society makes one wonder about how technology is integrated within education in a way that it preserves the quality of effective instruction' (Baert, 2012, p. 2221). Worryingly, for practitioners (those based in schools, communities and higher education), is that we are often provided with the latest 'gadget' but neither the time nor the opportunity to learn how to use it appropriately - even for daily tasks such as email and web browsing. How then are we supposed to use it pedagogically? To use it well in learning situations involves much more than learning the specifics of use. Instead it requires an "understanding of pedagogical principles that are specific to the use of technology in an instructional setting" (Diaz and Bontemba, 2000, p. 2).

Fundamentally I think we have it the wrong way around. We get the technology and then try and use it in the classroom rather than thinking about technology as a tool to help us pedagogically. Fletcher (1996) suggested that any use of technology in education needed to be grounded in educational practices:

When you go to the hardware store to buy a drill, you don't actually want a drill, you want a hole, they don't sell holes at the hardware store, but they do sell drills, which are the technology used to make holes. We must not lose sight that technology for the most part is a tool and it should be used in applications which address educational concerns. (p. 87)

Therefore, rather than simply adopting technology wholesale into our classrooms, we need to consider the pedagogical implications of such a move. Furthermore, we need to consider how we might develop a pedagogy of technology that allows for the integration of innovation into our classrooms to stimulate learning and engagement. Such a move towards the technologization of physical education must be done carefully, with our sights firmly set on learning.

Yet, there is a danger that technology use may mirror some of the worst practices in physical education - practices that Ennis (1996) suggested needed more than just apologies. For example, the "roll out the ball" approaches to 'teaching' in our subject have become the scourge of those who strive for learning rather than doing as the centre of practice in schools. Should technologies like Nintendo Wii and Xbox 360 become substitutes for teaching then we are in danger of physical education replacing the ball with a game station and becoming a subject that "rolls out the television" and replaces the ball pump with the portable charger.

There is no substitute for good pedagogy. However that now means one that uses technology to enhance the learning that occurs and take learners beyond the four walls of their classrooms. With the rapid emergence of technology we now need to find more than just a place for it in our teaching but create a place for it in the learning of our students. To do this we must focus on its use pedagogically and find ways of bringing the world to the classroom. We are not limited by possibility only by imagination.

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