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From Comparative Education to Comparative Pedagogy: A Physical Education Case Study

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In the last two decades forces of globalization and the rise of and access to information technology have transformed the nature of educational research. Traditional disciplines such as comparative education have not been immune to these transformational impacts. Although one might expect globalization to promote the study of comparative education, comparative perspectives are yet to permeate many corners of education and little attention has been paid to their potential to inform the area of physical education. This paper argues that comparative education has a unique role to play in informing physical education policy and practice. To support this claim this article presents one particular example: comparative physical education pedagogy.

Therefore this study compared and contrasted two methods of teaching physical education (direct versus indirect) in order to determine which approach is more effective for student learning. The comparison was evaluated and measured for 'enjoyment', 'skill developed' and 'tactical understanding'. Participation in sport at a young age has shown to positively influence young people's physical activity later on in their life. At a time where participation rates in youth sport are dropping significantly and there are high rates of obesity, the results of this study will be of interest to policy makers as the findings have the potential to contribute to new knowledge and practice in education.

Further, by providing a case study for physical education, we demonstrate how comparative education can play a useful and multidimensional role in wide and varied areas of educational research.

Keywords: Globalization; Physical Education; Pedagogy

INTRODUCTION

It is more than a century since Jordan (1905) completed his seminal work *Comparative Religion*, which presented a description of 26 comparative fields. Writing on comparative education, Jordan (1905) concluded that, “no method of inquiry has proved more fruitful of wise suggestions” (p.35). Early comparative educationalists primarily examined various national education systems, and in America, for example, there was a fascination in the early twentieth century with the Prussian education system (see for example: Hinsdale, 1906; Stowe 1930). Hans (1955) noted that the early comparative educationalists were interested in drawing on foreign models with the “purpose of perfecting national systems with modifications and changes” (p.57). Comparative educationalists argued that the study

of international perspectives enabled an informed critical perspective on one's own system.

The discipline grew steadily and, by the 1950s, comparative education became integral in the tertiary education sector. For example, in most Australian and other Western countries the discipline formed an important part of teacher training departments (Trethewey, 2014). This post-1950s period was the golden age of comparative education as evidenced by the establishment of professional organisations, associated academic conferences and research output (Phillips & Schweisfurth, 2014). The period immediately after the rise of globalization and the associated internationalization of education, changed the landscape that comparative education was positioned in (Carroll, 2012). Many of these early comparative education activities and influences noted above disappeared and in recent years there has been a trend of promoting issues related to post-modern influences and perspectives. Further, emerging comparativists struggled to define whether comparative education was a discipline, methodology or a field (Phillips & Schweisfurth, 2014).

While there are still strands of comparative education interested in applied research, such as policy borrowing (Phillips & Ochs, 2004; Phillips, 2014), the overwhelming body of contemporary research has moved towards post-modern research and methodologies; and focus has drifted from examination of education and schooling systems. Further, mainstream comparative education has conscripted the advancement of modernity as the underlying definition of education. Consequently, comparative education's legitimacy has been questioned (Crossley, 2000; Broadfoot, 2000). Broadfoot (2000) argued that comparative education:

> *…has a unique capacity to make the familiar strange but so far, despite the advent of exciting new methodologies and the rapidly increasing prominence of comparative studies as a tool for policy-making, comparative education has largely worked within the conventional 'delivery model' conception of education. (p.357)*

Crossley (2000) went further and noted that if the field is to be reconceptualised:

> *…in ways that articulate and demonstrate its continued relevance for the 21st century, it is argued that its history and traditions deserve both celebration and challenge. The field's multi-disciplinary origins and nature, for example, position it well for further advancement in a future in which the socio-cultural analysis of global trends and developments will require concerted attention. (p.319)*

In the last decade a number of publications, including special editions of journals and edited books, were published which looked at the scope, trends, contours and boundaries of comparative education (Wellington, 2015; Bray, Adamson & Mason, 2014; Trethewey, 2014). Key terms in titles of publications included 'rethinking', 'reconceptualising' and 'rethinking the role'; it was clear that considerable debate had been generated regarding future directions of the discipline. There were more worrying trends and Wilson (2006) noted that in England at least, comparative education was in decline and was slowing disappearing from the tertiary education settlement. This decline has been accompanied by a parallel rise in research based on international educational assessments such as the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA) and international surveys of educational policy

and practice such as the OECD's Teaching and Learning International Survey (TALIS). This research on policy and practice is now substantial, highly influential and the focus of strong critique (Sjøberg, 2015). Whilst these studies are ostensibly international and comparative, they sit outside the disciplinary community of traditional comparative educational research and threaten to further marginalize the significance of the discipline. However, their highly applied nature and broad ambitions may provide lessons for traditional comparative researchers.

One theme, which clearly emerged from retrospection of the comparative field, was the reality that the decline in the standing of the discipline was also related to the resistance to broaden the discipline's appeal and inquiry. In the two-volume compendium to comparative education, Cowen and Kazamias (2009) devoted a section of the second volume to new directions of inquiry into comparative education, as they believed there was clearly an urgent need to address these shortcomings. Therefore, one of the primary aims of this article is to highlight the possibilities and opportunities which Cowen and Kazamias (2009) called for. While the example or case study noted in this article is physical education, other subject areas could have been selected, such as science or maths education.

While physical education has a long history in modern school education, and in most countries around the world it is a mandated subject in both elementary and secondary schooling (Hardman & Marshall, 2009), comparative educationalists have been reluctant to address issues associated with physical education and there is sparse mention of it. For example, a survey of articles in the three most prestigious comparative education journals (*Compare, Comparative Education Review* and *Comparative Education*) between the years 2010 and 2015 finds there are no physical education entries. A similar picture is evident in the papers which were presented at various comparative education conferences. For example, between 2010 and 2015 at the 'Annual Conference of the Comparative and International Comparative Education Society' (CIES), held in the United States, there was no evidence of physical education. Furthermore, physical education is an area also neglected in the large international assessment and survey programs run by the OECD. It is not clear why there is an absence of comparative international physical education research. This lack of focus on physical education reinforces the criticisms made of contemporary comparative physical education research (Cowen & Kazamias, 2009) mentioned earlier.

Therefore the aim of this paper is to highlight and demonstrate how there can be an important synergy between physical education and comparative education by using research presenting a comparative physical education pedagogy research project on research conducted in 2014 and not previously published.

COMPARATIVE PHYSICAL EDUCATION PEDAGOGY

It is almost a decade since Planel (2008) noted that one area of neglected potential in comparative education has been in comparative pedagogy. She argued that there were three main reasons why comparative educationalists should focus on pedagogy:

> *Firstly, comparative education has, since the 1990s and following the trend in the study of education in general, turned its attention more to pedagogy. Hence, comparative pedagogy now has a greater knowledge*

> *basis. Secondly, pedagogy is the area of comparative education which is arguably most relevant and useful to all teachers since it deals with the act and discourse of teaching. Thirdly, pedagogy is wider than what goes on in the classroom: 'Pedagogy connects the apparently self-contained act of teaching with culture, structure and mechanisms of social control'. (Planel, 2008, p.386)*

While Planel (2008) clearly articulated the research possibilities above, it is not clear why there has not been a focus on pedagogy. Across educational research, pedagogy is a strong research theme. Alexander (2011) further lamented that pedagogy was the "most prominent of the themes which comparativists have tended to ignore" (p.509) and there exists evidence which support this claim. For example, Little (2000) produced some empirical research and calculated that less than seven per cent of articles in *Comparative Education* between 1977 and 1998 dealt with "curriculum content and the learner's experience" (p.285). To address some of this neglect this article conducted comparative physical education pedagogy research in an Australian secondary school. The point of this study is not to demonstrate pedagogical innovation or claims made, but rather to provide a pertinent example regarding the possibilities available for important comparative scholarship.

Physical education, like comparative education, is a long established academic discipline and there has since the 1950s been significant research in the area. One of the most dominant streams of research is related to pedagogy (Ennis, 2016). Kirk and Haerens (2014) argue that:

> *…that there is an emerging consensus (in the English-language research community) that pedagogy is the proper object of study of educational research in physical education and sport, confirmed by the increasing prevalence of studies that explore relations between the components of teachers, teaching and teacher education, curriculum and learners and learning. (p.899)*

This growth and consolidation of physical education pedagogy has also been the result of a strong focus by researchers advocating or privileging one method over another. While it is well accepted the physical education is an important tool for addressing poor health outcomes such as obesity and physical inactivity, there has been considerable debate on the most effective method. Views have been polarized. Therefore what transpired was an abundance of research which focussed on key pedagogical approaches, such as Game Sense, Sport Education or Fundamental Movement Skills and their effectiveness (Light, 2013; Breed & Spittle, 2013; Okely, Booth & Chey, 2004; Hardy et. al., 2010; Siedentop, Hastie & Van der Mars, 2011). Much of this research is based on responses from pre-service teachers or results from various school interventions (Pearson, Webb & McKeen, 2005; MacPhail, et. al, 2008). What has clearly characterized this research has been the narrow research focus; all these studies examine one particular method in isolation. There are innumerable studies for example on Fundamental Movement Skills (FMS) or on Game Sense pedagogy undertaken independently in research silos, which has lacked both influence and impact (Kirk & Haerens, 2014). Effective physical education pedagogy also received impetus due to the reality of ever decreasing time made available for physical education, globally, both in the primary and secondary sector (Hardman & Marshall, 2009).

While there is a strong and growing research base underpinning all these various pedagogical models (Metzler, 2005; Kinchin, 2006; Oslin & Mitchell, 2006) there is little research to document if they have influenced practice in physical education or if they have impacted at a policy level. Also physical education pedagogy researchers for the most part have not been able to integrate knowledge from different domain and fields, and this of course includes comparative education. That is, in each of the related domains researchers are generating valuable knowledge which is ultimately fragmented.

The research presented here attempted to address this neglect by comparing and contrasting two diametrically opposed pedagogies which underpin international physical education curriculums and in particularly which approach is the most effective in teaching physical education.

The Games Sense and FMS physical education pedagogies are both denoted by a range of names; Game Sense is often referred to as 'Teaching Games for Understanding', and FMS is also known as drills and skills. For the purposes of this study the FMS approach is termed the 'direct approach'. In this approach students receive direct instruction from the teacher in which a set of body of knowledge is transmitted. This involves the refining of particular skills that are seen as fundamental to playing the particular sport (for a thorough description see Darst, Pangrazi, Brusseau & Erwin, 2014). For example in the sport of basketball, the first levels would focus on dribbling, shooting, passing and defending. Skills are practiced in isolation from the game and other tactical aspects of play until the teacher feels the players are confident enough to play the game.

The second approach, Game Sense, is termed the 'indirect approach'. In this approach the instruction is student-centred, inquiry-based and allows students to develop their own understanding while actively involved in the game (for a thorough description see Light, 2013). Unlike the direct approach noted above, in this approach games are immediately played and no skills or techniques are practiced. The games are small sided, modified and are manipulated to cater for different ages, abilities and inclinations. While there are number of names given to various physical education pedagogies such as Game Sense, Fundamental Movement Skills, Sport Education, skills and drills, all these approaches fall into either the direct or indirect approach.

RESEARCH DESIGN

Therefore, we conducted a study in 2014, which compared the two approaches (direct approach versus indirect approach) in order to determine which approach was more effective for student learning and engagement in a secondary school setting. The comparison was evaluated and measured for 'enjoyment', 'skill developed' and 'tactical understanding'. According to physical education research these three aspects are considered central to effective physical education outcomes (Alexander & Luckman, 2001).

Tactical understanding is important to effective physical education teaching because students are more likely to show interest and participate in a game or sport if they develop a tactical understanding of the game early (Light, 2013). That is, if students do not understand the tactics involved in a sport they won't be able to participate actively. The literature is also unanimous that enjoyment is an essential aspect of effective pedagogy. As enjoyment is key to learning and participation in physical education, it is important to

utilize the influence pedagogy can have on student enjoyment levels (Dishman, et.al., 2005). Finally, a focus on skills is central to effective instruction because they are considered building blocks to participating in sport. That is if you cannot do the skills that comprise a sport you won't be able to participate (Mayer, 2014).

In order to measure tactical understanding the Team Sport Assessment Procedure (TSAP) instrument was used. TSAP is an effective validated tool in testing for a tactical knowledge and understanding of the game (López-Pastor et. al., 2013). The TSAP instrument was used to measure the tactical output of students in a basketball game and soccer game. Following the implementation of the TSAP instrument, a table was created that comprised of three levels of tactical understanding, which were: proficient, adequate and below average. Student levels were determined by their TSAP scores. In order to measure enjoyment the study used a survey with close-ended 20 questions which was established and validated by Hashim et. al. (2008). Regarding skill development, two pre-existing skill tests were administered. For the sport of basketball the AAHPERD (1984) skill test was adopted which examined three basketball skills: shooting, dribbling and passing. While for the sport of soccer, the skills test focused on the three core skills of soccer passing, dribbling and receiving as identified by the Football Federation Australia (Berger, 2013).

Participants and Setting

The research setting was a public secondary school of approximately 1,000 students located in a suburb of Sydney's inner west. The school represented a typical government school in Australia with varying levels of ability from class to class. The sample included two classes consisting of 48 students in total from the Year 8 cohort. There were 27 boys and 21 girls who consented to participate in the study. The researchers instructed the students once a week for term 3 of the calendar year. Each class was 70 minutes long. In total each class spent five weeks with the sport of basketball and five weeks with the sport of soccer. Jacobson, Kim, Pathak and Zhang's (2013) study demonstrated that it was possible to show the benefits of an intervention after only four sessions. The two sports selected (basketball and soccer) were selected because they formed a mandated part of the NSW Health and Physical Education syllabus (New South Wales Board of Studies, 2003). The researchers had prior experience teaching the sports and had acquired coaching qualifications in basketball and soccer. The selected sports that were being used to conduct the research were chosen in recognition of basketball and soccer being two of the most common sports taught in physical education. Furthermore, the fact that these sports are ranked high in participation rates and popularity in Australia meant the majority of students had background knowledge of the games (Australia Bureau of Statistics, 2014). For each of the sports a syllabus (for both indirect and direct approaches) was developed. It must be noted that regardless of the approach (direct or indirect) the teaching was taught at a superior level.

RESULTS

The indirect approach clearly produced higher tactical understanding scores. While results ranged significantly for both sports: basketball (4.2 to 31.7) and soccer (5 to 12.3) there is no doubt that students who had the indirect treatment had higher results. What was statistically significant with the results was that the girls demonstrated a stronger tactical understanding of the sports especially in basketball. Using the TSAP tool girls also clearly exhibited a higher volume of play. The results show that after playing games in their

respective sport, overall girls exhibit a higher volume of play, which is the general involvement within the game. Furthermore, the girls' efficiency ratings as a group were significantly higher than that of the boys'. The findings indicate that indirect instruction is significantly more effective in eliciting tactical awareness in Year 8 students especially in girls.

Enjoyment levels also correlated with the tactical understanding results. That is students had significantly higher enjoyment levels during their indirect teaching in both soccer and basketball. Scores were significantly lower using the direct approach especially in soccer. It is not clear why levels were significantly higher, as there is no qualitative data generated although it would be fair to assume that they were more active in the indirect instruction. Looking at the volume of play from the TSAP results it is evident that the majority of students were actively taking part in the activity. When a gender breakdown is provided there are no statistical differences, although a number of female participants indicated they were not enthusiastic about participating in basketball prior to the commencement of the unit however, after completing the indirect unit they altered their stance. The boys produced similar results in relation to their enjoyment of the soccer unit.

Regarding the skill component of the study, the collected data was analysed through the use of two tools. The first being the use of the Statistical Package for the Social Sciences (SPSS), which allowed for the use of Independent T-tests to verify whether or not data was statistically significant (Gratton & Jones, 2010). The second tool used was excel to analyse the combined total of both girls and boys. Independent T-Tests demonstrated that students obtained higher skill scores from the direct instruction group. In the direct approach both boys and girls as a whole demonstrated a significant improvement in the post-test compared to the pre-test. Therefore, this difference demonstrates greater growth in skills after the use of direct instruction in a Year 8 school setting.

In summary, the results highlighted that overall there was more enjoyment and tactical understanding evident amongst the students in both classes in both sports when the indirect approach was used. This was even more statistically significant for girls who demonstrated a significantly higher tactical understanding than the boys. Regarding skill acquisition, there is no doubt from the statistical analysis undertaken that the direct approach yielded stronger results. This was the case in both classes and both genders.

CONCLUSION

It is 200 years since Marc-Antoine de Paris (1775-1848) published *Esquisse et vues préliminaires d'un ouvrage sur l'éducation comparée (1816/1817)* which is considered to be the founding date of the comparative education discipline. While the discipline itself has been a legitimate academic pursuit with associated departments, undergraduate and postgraduate university representations and academic research, there has been considerable debate in recent years on both the shortcomings of the discipline and also future directions. Using the case study of comparative physical education pedagogy, this paper has argued that comparative education has a useful and relevant role to play in physical education. There are a number of reasons for this. First, it addresses some of the criticisms noted in comparative education critiques of the discipline such as the insular nature, where the same topics are recycled over and over again. Second, due to rising levels of obesity and physical inactivity around the world, physical education is now an area of research which is 'topical' and significant interest and funding are located in this area.

Third, comparative educationalists with all their expertise in the discipline, in particular methodological, are perfectly positioned to be at the front of this globalized interest. Therefore this article provided a 'roadmap' of opportunities that comparative educationalists can adopt to address the shortcomings noted above. Future research might, for example, provide studies into comparative youth obesity and physical inactivity research; or studies into comparative physical education policy by country. The test for comparative educationalists now is to make this transition. As has been clearly noted above, the possibilities are endless.

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