**Primary School Children’s Experiences of Physical Activity: The place of social and cultural capital in participation and implications for schools**

In the UK, nearly one third of children aged 2 to 15 years are failing to engage in sufficient physical activity (PA). Associated interventions are historically rationalized from adult perspectives. This study aimed to empower children as participants in the research process and experts of their own experience in an endeavour to inform activity intervention. Specifically, the place of social capital in facilitating PA was explored.

113 participants aged 5-10 years drew themselves being physically active and were interviewed about their pictures. An adapted critical visual methodology framework and descriptive narrative was used to explore relational aspects of content and meaning in generated data.

The study found social capital formed an essential basis for participation in PA and that key social influencers shifted from family to peers between the ages of 5 and 7yrs. It is argued that schools could develop PA opportunities through the positive manipulation of social relationships.

Keywords: Physical activity, social capital, children’s experience

**Introduction and context**

As across much of the western world, there is a plethora of emotive rhetoric in the UK surrounding concerns with children’s health and in particular, with levels of obesity. Concerns are currently being expressed that nearly one third of children aged 2 to 15 are overweight or obese (Gov.UK, 2017). This is a concern that has clearly existed for a number of years (Everley & Macfadyen, 2015) and is one that has sustained a position in public consciousness. Indeed, recent evidence associated with this issue indicates that children are becoming obese at an earlier and earlier age with suggestions that physical activity may be declining from the age of 7yrs (Griffiths et.al, 2013, Farooq et.al. 2017).

This is of concern not only because of the physical health implications but the potential social and psychological development consequences that this may ultimately have. Indeed, much of the rhetoric surrounding issues of physical activity and obesity has been framed in the language of deficit (Bailey, Hillman, Arent &Petitpas, 2012) and conveys a tone of moral rectitude associated with a lack of activity. This study seeks to challenge such symbolically negative messages and argues for the need to incorporate positive ways in which children’s perceptions of physical activity might contribute to informing interventions that schools might employ to ultimately support children’s development of positive physical health behaviours. Placing emphasis on what is valued by children, should help form the basis of our endeavours to encourage the enjoyment of physical activity and resultant health benefits that may ensue.

On a formal level, children have the right to be consulted on policy making issues that specifically affect them (Cremin, Mason, & Busher, 2011); informally, practitioners working with children will recognise the value of collaborating with children in matters that concern them, and the empowering nature of that consultation for all involved (Rudduck & Flutter, 2004). This would therefore indicate that it is essential to understand subjective experience of physical activity and give children voice in planning of effective health behaviour interventions.

Studies of children’s physical activity (PA) to date have largely focussed on measuring levels of engagement objectively, both in terms of initial engagement (Bailey et.al., 2013, Huddleston, Barry & Caputo, 2016) and in response to activity interventions (Ignico & Ethridge, 2006; Noonan, Boddy, Fairclough, & Knowles, 2016; Vidoni & Ignico, 2010).

Whilst valuable in themselves, such investigations do not incorporate within their scope the nature of the context within which children take part in physical activity. As argued above, it is the subjective experience of engagement that may have greatest effect on participation (Everley and Macfadyen, 2015, Jago, Brockman, Fox, Cartwright, Page and Thompson, 2009). This highlights a distinct need for qualitative investigations (Garcia, Sirard, Larsen, Bruening, Wall &Neumark-Sztainer, 2016) ) that can establish an understanding of subjective experience, the meanings of which can be used in interventions aiming to generate positive orientations towards physical activity; if children have positive experiences of PA this is likely to underpin long term engagement (Nielsen, Grønfeldt, Toftegaard-Støckel, & Andersen, 2012).

In terms of interventions, the vast majority of policy documentation targeting children’s engagement in physical activity (PA), not only emanates from an adult perspective but focuses on the place of ‘sport’, and is based on the imposition of beliefs about activity rather than an understanding of what is most likely to be valued by children. There is arguably a gap in our knowledge of the child’s subjective experience of and a need to gain an understanding of this if we are to effectively encourage active lifestyles. This would be consistent with earlier calls for positive representations of the value of PA (Bailey et.al, 2012).

There have been a number of suggestions that children’s engagement in physical activity may be purposefully analysed through the application of theories of social engagement (Everley & Macfadyen, 2015), and in particular, the role that concepts such as social capital might play in encouraging participation. As social capital has been positively linked to health and weight status in adults, (Bot, Mackenbach, Nijpels, & Lakerveld, 2016) it may be that such an association exists for children or, has the potential to be exploited by children in terms of health behaviours. Drawing on Bourdieu’s theories concerning the generation of forms of capital(Bourdieu, 1989, 2013) as tangible and intangible ‘goods’ for exchange (Field, 2017) and the application of power in specific fields, this paper asks the question of how physical activity (PA) is experienced, what children value in it and whether interrelationships between actors affecting this might be positively exploited to support PA. Where PA is considered culturally valuable, it is also socially appropriate and normative (Green, Smith, & Roberts, 2005). In particular, the aims of the study were to investigate:

* Children’s perceptions of physical activity and health
* Key social influencers of engagement in physical activity
* The role that different forms of capital play in engagement with physical activity

**Methods**

In order to understand children’s perceptions and construct a comprehensive representation of their experience it is necessary to employ methods that in themselves acknowledge children’s need for agency in the research process (Everley & Macfadyen, 2015). Part of this consideration is the dual power differentials that exist between the subject as both child and participant and the investigator as both adult and researcher. It it therefore necessary to explore methods that facilitate the collaborative construction of data and enable children to take a role in directing the research process (Everley & Macfadyen, 2015; Kinnunen & Puroila, 2016). If children are experts on their own experiences (Cremin et al., 2011; Thorburn & Hibbard, 2008) as is the basis assumed in this study, it is necessary to provide a context of empowerment that facilitates the communication of this.

Similarly, it is also of value to acknowledge the way that children construct knowledge; in short it is necessary to consider ‘ways of knowing’ that are first hand (Carless & Lam, 2014; Guillemin, 2004). Presentational, symbolised knowledge has been discussed as representative of experiential knowing(Liamputtong, 2007); therefore, in terms of the research process, such approaches have the potential to generate a more immediate and representatively accurate conveyance of meaning.

In particular, representation of meaning in artistic forms for younger children, where there is not requirement for the intervention of linguistic articulation in the first instance, may facilitate the understanding of children’s perspectives.

Drawings as a research tool help vulnerable people where they find it difficult to express meaning in words(Guillemin, 2004) . With respect to the context in which we were working, children, and in particular, younger children may not have immediate access to the vocabulary required to express meaning; therefore, utilising drawings in the first instance facilitated not only the interaction between researcher and subject but created a framework on which to construct a narrative of experience(Everley & Macfadyen, 2015). Therefore, in order to address issues of power distribution, facilitation of expression, and accuracy of interpretation, drawings were utilised along with interviews in the research process.

Ethical approval for this project was established at an institutional level. Informed parental consent and child assent was secured with the support of the schools concerned. Children were reminded at each stage of the research that they had a right to ‘change their minds’ about being involved. Permission was requested from each child to utilise their drawings on an individual basis. No children elected to not be involved in the research although four children were absent from school on one of the days that data was being collected. In the three instances where children had completed their drawings but not been interviewed their data was not included in analysis.

113 children aged 5-10 years, from three UK primary schools took part in the study. Each was on the south coast of England and categorised as a ‘good’ school by the national inspectorate, the Office for Standards in Education.

Children drew themselves being physically active and were subsequently interviewed about their pictures and wider engagement in physical activity. Children completed drawings in their familiar classroom settings with their teacher present. The lead researcher began by talking to children about what their understanding was of the term ‘physical activity’. The discussion arrived at an explanation of what would by adults be termed as ‘moderate to vigorous physical activity’ in child appropriate language as ‘moving about’ that ‘makes you go a little bit red or can make you huff and puff’. The children all drew their pictures on A4 sized paper which they were free to orientate as they wished, and used any pencil or pen colouring utensils from those normally available whilst in the class.

Children were interviewed, again by the lead researcher, individually within one week of completing the drawings in open plan teaching areas close to, but outside of, their classrooms. Interviews were recorded on a mobile telephone as children are culturally familiar with such devices (as opposed to with Dictaphones which were likely to be unfamiliar to them).

The focus of these interviews centred on the role of social capital in initiating and maintaining engagement in physical activity and were crucial to ensure accurate interpretation of images (Pearce & Bailey, 2011). The use of one lead researcher in generating data ensured consistency of information given to children and ensured ethical procedures were adhered to. Interviews were subsequently transcribed verbatim.

There is much debate regarding how social capital is to be defined and the extent to which this reinforces power differentials (Grossman, 2013; Tzanakis, 2013)); however, all discussions revolve around the grown adult rather than children. The purpose of this study was to investigate the nature of social capital and role that it might have in children’s orientation towards physical activity. Therefore, three key factors, common to all social capital theorists were utilised here:

* the social interactions that took place in order to facilitate physical activity
* the fields in which physical activity occurred
* the cultural significance of PA as affecting social relations and sustainability of physical activity

**Data analysis**

Drawings were initially analysed using an adaptation of Rose’s critical visual methodology framework (Rose, Jolley, & Burkitt, 2006; Rose, Jolley, & Charman, 2012). This ensured a process of establishing the objective content with respect to activity activity and its context in terms of visually describable physical, cultural and social environment (Rose, 2016). Then, following Everley and Macfadyen (2015) drawings and verbal explanations were evaluated using descriptive meta-narrative generated around each of the raw data sets before being thematically analysed, whilst mindful of maintaining the integrity of the original data (Dismore & Bailey, 2011). Essential here were the relational elements of themes linking drawings and interview in a process that identified both content and meaning (Beazley, 2013). For example; a child may draw themselves in the park, playing with their mother. The day is sunny, and both are smiling in the picture; they have their family dog with them. This would be recorded as objective data. Possible explanations for this could be:

* Relief from boredom for an only child and possibility to meet other children
* Coming from a large family, a weekly opportunity to spend time alone with their mother furthering their relationship
* An activity that followed in a mother’s effort to compensate her child having not been invited to play with friends

Each of these scenarios carries a significantly different meaning and significance for the child and it is the nature of this and its impact on physical activity that becomes important. Therefore, the explanation that the participant gives during their interview is crucial to our understanding. Linking these in a short narrative provides an overview of a child’s engagement in physical activity that has been comprehensively co-constructed remaining mindful of participant intent.

The process of analysis was completed by two researchers both of whom are experienced (over 10 years) in processing qualitative data using inductive analysis and are familiar with doing so using data generated by children. Sensitizing concepts were used as interpretive devices in this process following Brown (2006) and drew from social-capital theory, as identified above.

The framework therefore focused on the three elements of social capital theory with emphasis on the nature and significance of an individual’s influence over a child’s participation; the child’s identity in this context and the sustainability and depth of social networks explored in relation to the cultural environments experienced.

In light of this, it is acknowledged that interpretations, by their very nature, can never be verified as entirely ‘true’ (Beazeley, 2013). Rather, particularly in regard to the conceptual framework and relative nascency of this kind of study, processes to ensure the feasibility of thematic development as could be verified through the data was important. Therefore, the researchers worked to independently code a selection of the same data to subsequently compare and challenge interpretation. This ensured that a focus was maintained on what was most meaningful to the children within the context of the research question.

**Findings overview**

Findings indicate that cultural and social capital do play a significant part in the way that children engage in physical activity and conversely, physical actvity potentially has a significant role to play in encouraging children to engage in sustainable patterns of engagement behaviours. Outcomes of the study demonstrate that:

* Key influencers of children’s engagement in physical activity shifted from being that of the family to that of peers between years 1 and 2 (children aged 5/6yrs and 6/7yrs).
* Children had a desire to accumulate social capital through engagement in culturally acceptable forms of physical activity.
* The value of social capital featured significantly in children’s potential to participate in physical activity
* Social capital affected the hierarchical organisation of physical activity in free play

**Transition from Family to Peer influence on Physical Activity**

For those children in year 1 (aged 5 and 6 yrs), the greatest influence on their participation was their family/shared family, however, from years 2 onwards, the influence of peer groups, social and cultural capital significantly affected their orientation towards physical activity.

Of the 113 children, 45 (39.8%) drew themselves as active within the context of their family. At primary school age this is perhaps not surprising but within the groups of children a much stronger emphasis was placed on this within the youngest year group.

Of the 30 children in year one (aged 5-6 yrs) 68% (n=20) drew themselves with their family and a further 23% (n= 7) drew themselves in an activity that was dependent on family (swimming and gymnastics lesson contexts) and identified them as key influencers of their participation. For those children from years 2 upwards (aged 6-7yrs to 10-11yrs) 78% (n=88) identified themselves in a social context shaped by the presence of peers.

This is of major significance as recent research has demonstrated that, contrary to the popular belief that physical activity declines in adolescence within England, the actual age at which it does so is much earlier and most significantly for the reflections of this study, from the age of 7yrs (Farooq et al., 2017) i.e from school year 2 .

Having established that there appears to be a change in emphasis in social influences on children’s participation in PA, the nature of the contexts in which they occur will further inform us about the influences on children’s engagement.

Within the study of social capital, the concept of field can be defined as a situation in the production and distribution of power; a space where social relations determine experience(Grossman, 2013). In terms of the material and social contexts in which children engaged in physical activity, fields focussed primarily on the home or free play in school. This is of significance as fields are the ‘potential space’ where change is mooted(Tomlinson, 2004) .

Assessment of research that has assessed the role of family and peers in affecting individual levels of activity suggests that the overall picture is equivocal(Garcia et al., 2016) (Quarmby & Dagkas, 2010). However, particularly with reference to children, there has been some evidence to suggest that friends can provide support to initiate engagement (Everley & Macfadyen, 2015) and that family provides potential to generate an initial interest in it (Nielsen et al., 2012). Evident in this study was a clear potential for family to affect an initial interest that can be subsequently supported through peer influence, creating potential for sustainable engagement in physical activity (Figure 1):

*Insert figure 1 here*

Indeed, this potential was illustrated through children’s introduction to a particular activity through a sibling who themselves had been influenced by peers with maintained participation:

*‘ I like tennis now – my brother got me to do it ‘cos practically all his friends did it’ (George, aged 10)*

Consideration for a growing number of children is the influence of shared families i.e. those whose parents have separated but maintain a parental influence over the child. In many instances the existence of two or more interlinked families identified their physical activity as centred on family activities. Around one third of children in the UK are likely to experience parental separation before the age of 16 and currently around 9% of children live with shared families (Gingerbread, 2017). It has been identified that physical activity results from family normative values (Nielsen et al., 2012). One question that this study raised was with respect to levels of activity where children are influenced by more that one family context. It may be the case that children are more active where they have ‘shared’ families:

*‘This is me playing outside with my Daddy (stepfather)– I also play in the park with my Daddy Daddy (biological father) – I run outside a lot ‘cos I see both my Daddies outside’ (Helen, aged 5)*

This may therefore indicate that further research into the nature of families and whether there are patterns of associated norms relating to physical activity engagement.

Irrespective of normative contexts, social capital is strongest where relationships are reciprocated and this was evident not only in children’s engagement in activity with family, but also, particularly for children aged 6yrs and above, with peers.

However, it is insufficient to claim the generation of social capital purely on the basis of evidence of the existence of a relationship; there needs to be evidence of reciprocation and trust in order for that capital to have meaning. Within this study, in all instances, regardless of age, the relationships with peers described by children were reciprocated and indicative of sound, bonding social capital (that which is meaningful and transferable). This is consistent with the suggestion that such skills inevitably result from participation in PA( (Bailey et.al., 2012, 2013). The homogeneity of group interest in PA and collaborative nature of engagement fortified social relations, and were therefore indicative of the existence of bonding capital where ties between group members are strong (Figure 2):

*Insert figure 2 here*

Further to this, existing social relations meant that children were introduced to particular activities, consistent with previous research (Jago et al., 2009). This would therefore indicate that it may be possible to utilise social networks in order to encourage physical activity:

*Insert figure 3 here*

Therefore, it is evident that social networks, particularly where bonding capital is generated, can and do lead to engagement in positive health behaviour despite there being limited investigations into how children become socially included through activity (Bailey, 2005). A question arising from this is whether this also affects levels of physical activity; particularly as there is evidence that there may be no relationship between levels of activity and social support (Garcia et al., 2016).

However, on this theme, there also emerges the ‘dark side’ of social capital in association with physical activity, in the sense that such contexts also lead to the exclusion of some children (Everley & Macfadyen, 2015). This is likely to be particularly strong where an acceptance of social differences and hierarchies has led to to a ‘sense of one’s place’ resulting in behaviours of self-exclusion (Moncrieffe, 2017):

*‘I don’t play with the boys in my class – I don’t do football at home cos I don’t know what to do really- I can’t get the ball and it gets all stressy ‘cos there’s just no time to decide what to do with it so I don’t play – I go in the wild garden’*

*(Luke, aged 10)*

This is consistent with earlier findings(Everley & Macfadyen, 2015) and suggests that the very children that may need support in becoming more physically active are those who find entering social fields through which to do so problematic. However, it does highlight that there are particular barriers to participation where organised sports or derived activities are less accessible to some groups than informal, creative activities (Nielsen et. al., 2012).

Each of these contexts are therefore indicative of the need to further explore the way in which children develop networks of relationships, the way this changes over time, and the implications this has for engaging in health behaviours.

**Physical activity, social identity and hierarchical advantage**

Related to the notion of generating social networks through physical activity is the generation of identity and the hierarchical ordering of relationships. A key theme emerging with the children’s engagement in physical activity for those children of years 2 and upwards (aged 6-7yrs and above), was that of the status established by taking part in culturally valued activities. This formed a hierarchy for those children who were most influenced by peers and created a sense of value around taking part in particular activities:

*‘Usually Max organises the games ‘cos he’s the best player and so everyone does what he tells them- he’s sort of in charge… ‘cos everyone wants to play football ‘cos it’s the best game’ (Jack, aged 9)*

Such outcomes would indicate that schools could improve engagement in physical activity through the provision of culturally desirable activities and utilising individuals to actively support others in their engagement. We would also argue that there may be potential for those children not considered good at valued activities, but who possess social capital generated outside of physical activity to influence participation. Individuals holding social capital could lead others in engaging with specific activities.

Individuals experience power differently depending which field they are in and children in a playground environment offering physical activity opportunities may not feel able to access them. However, if fields and habitus evolve over time (Bourdieu, 2013), manipulating contexts through creating positive social relationships in what would have appeared a hostile environment to particular children could actually change their experience of being physically active. As social capital is available and potentially of value to all groups in society (Grossman, 2013, Putnam, 2001) for children in school contexts, this is an essential point for positive exploitation.

Contexts where individuals interact, identified as fields, create the opportunity for spatial flow of capital. In school contexts, with respect to physical activity as identified by children, such opportunities lie largely in free play contexts. If social capital is generated through interactions but experienced individually, the ultimate purpose could be to give children the opportunity to create an identity in which they do see themselves as physically active.

**Social and cultural capital and consciousness**

Significant here is the question of social capital and the extent to which children are conscious of this and has potential for a dark side and ultimate exclusion of some from being physically active.

Findings from this study would indicate that social capital is a phenomenon associated with consciousness and that children make express effort to generate social capital or, conversely avoid situations in which it might be generated, or accept what they may consider to be a lesser alternative as their first choice point of engagement is inaccessible to them.

It has been identified through analysis of social capital, that individuals from different social classes engaged in different activities, but that those from lower socio-economic groups were not necessarily less active than those from higher ones (Nielsen et al., 2012). Therefore, selecting culturally appropriate activities for the children could be key in terms of cultivating engagement in schools. As social capital also needs to be continually nurtured (Adler & Kwon, 2002) and potentially renegotiated, it may be possible for schools, as relatively stable social contexts, to create an atmosphere of trust and reciprocation which may ultimately facilitate engagement in health behaviours.

Since these children may very well be those that we would wish to encourage in being more physically active this is clearly of concern. A solution could be to create playground leadership roles wherein older children support younger children in their engagement in physical activity through such activities – particularly as ‘buddy systems’ have been more broadly recommended to achieve health goals (Ellis, 2005). This could also improve both psychological and social wellbeing and therefore overall health for individuals. It would additionally address the concept of utilising fields in which children might be physically active in school –such fields would be in free play, taught lessons and pre/post school activities wherein children may exchange social for cultural capital (or vice versa).

However, children were very aware of their inclusion in particular groups and role within them. This is in contradiction to suggestions (Bourdieu, 1989) that power forms part of habitus and therefore is not consciously constructed. On the basis of the awareness demonstrated by the children in this study, it is arguable that the potential for physical activity to be a field within which children can benefit from the generation of social capital is a key point that schools may be able to exploit to encourage healthy active lifestyles. Indeed, children may consciously acquire or possess social capital commensurate with assisting engagement in physical activity.

**Conclusion**

We suggest that there is a clear relationship between the children’s participation in physical activity and concepts of capital. Therefore, it is arguable that establishing patterns of positive health behaviours with respect to activity requires stability of environment and networks. If young children now need to be targeted in order to be supported in being physically active in response to government concerns, schools present an obvious conduit through which to achieve this. However, in contrast to previous work that has focussed on the content of physical activity programmes (Ridgers, Carter, Stratton, &McKenzie, 2011), we suggest that the focus should be centred on the social interactions of children as the point of departure to encourage activity; social capital could act as an antecedent to being physically active. Schools are key institutions through which children can acquire capital (Comer, 2015) and can provide an essential field within which related physical activity opportunities can be developed and potentially track into adulthood (Engstrom, 2008).

Further to this, no social network exists in isolation and therefore schools could work with families to extend children’s interest in activity beyond their institutions. Habitus (Bourdieu, 1989; Grossman, 2013) as the embodiment of cultural and social capital is created through social processes leading to patterns that are transferable to other contexts and therefore, the transference of health behaviours from school to home and vice versa has great potential with respect to physical activity. This may be particularly significant as family support has been shown to positively affect younger children’s orientation towards it (Garcia et al., 2016).

However, caution does need to be exercised with respect to the management of such approaches; as was demonstrated within this work and previous studies (Everley & Macfadyen, 2015) the ‘dark side’ of social capital may lead to the exclusion of individuals and groups or to their restricted participation. We would therefore suggest that further investigations be made into the nature of social capital and the way in which it functions to delimit participation in health behaviours.

**References**

Adler, P. S., & Kwon, S.-W. (2002). Social Capital: Prospects for a New Concept *Academy of*

*Management Review, 27*(1), 17-40. doi:10.5465/AMR.2002.5922314

Bailey, R. (2005). Evaluating the relationship between physical education, sport and social

inclusion. *Educational Review, 57*(1), 71-90. doi:10.1080/0013191042000274196

Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2012). Physical Activity as an Investment in

Personal and Social Change: The Human Capital Model. *Journal of Physical Activity and;*

*Health, 9* (8), 1053-1055.

Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2013). Physical activity: An underestimated

investment in human capital? *Journal of Physical Activity & Health, 10* (3), 289-308.

Beazley, P. (2013). *Qualitative Data Analysis - practical strategies*. London: Sage.

Bot, S. D., Mackenbach, J. D., Nijpels, G., & Lakerveld, J. (2016). Association between Social

Network Characteristics and Lifestyle Behaviours in Adults at Risk of Diabetes and

Cardiovascular Disease. *Plos One, 11*(10). doi:10.1371/journal.pone.0165041

Bourdieu, P. (1989). Social Space and Symbolic Power *Sociological Theory, 7*(1), 14-25.

Bourdieu, P. and Waqcuant (2013). An invitation to reflexive sociology, Cambrige: Polity

Press.

Carless, D., & Lam, R. (2014). The Examined Life: Perspectives of Lower Primary School

Students in Hong Kong. *Education 3-13* (Vol. 42, pp. 313-330).

**Error! Hyperlink reference not valid.**Comer, J. (2015). Developing Social Capital in Schools. *Society, 52*(3), 225-231.

Cremin, H., Mason, C., & Busher, H. (2011). Problematising pupil voice using visual methods:

findings from a study of engaged and disaffected pupils in an urban secondary school. *British*

*Educational Research Journal, 37*(4), 585-603. doi:10.1080/01411926.2010.482977

Dismore, H., & Bailey, R. (2011). Fun and enjoyment in physical education: young people's

attitudes. *Research Papers in Education, 26*(4), 499-516. doi:10.1080/02671522.2010.484866

Ellis, R. (2005). Buddy Up. *Prevention, 57*(8), 23-23.

Engstrom, L.-M. (2008). Who is physically active? Cultural capital and sports participation

from adolescence to middle age—a 38-year follow-up study. *Physical Education & Sport*

*Pedagogy, 13*(4), 319-343.

Everley, S., & Macfadyen, T. (2015). “I like playing on my trampoline; it makes me feel alive.” Valuing physical activity: perceptions and meanings for children and implications for Primary Schools. *Education 3-13,*  doi.org/10.1080/03004279.2015.1069367

Fairclough, S., & Stratton, G. (2005). 'Physical education makes you fit and healthy'. Physical education's contribution to young people's physical activity levels. *Health Education Research, 20* (1), 14-23. doi:10.1093/her/cyg101

Farooq, M. A., Parkinson, K. N., Adamson, A. J., Pearce, M. S., Reilly, J. K., Hughes, A. R.,

Reilly, J. J. (2017). Timing of the decline in physical activity in childhood and adolescence:

Gateshead Millennium Cohort Study. *British Journal Of Sports Medicine*. doi:10.1136/bjsports

2016-096933

Field, J. (2017). *Social Capital: 3rd Edition -*London, Routledge.

Garcia, J. M., Sirard, J. R., Larsen, R., Bruening, M., Wall, M., & Neumark-Sztainer, D. (2016).

Social and Psychological Factors Associated With Adolescent Physical Activity. *Journal of*

*Physical Activity &amp; Health, 13*(9), 957-963.

Gingerbread (2017) Gingerbread - charity for single parents. (2017). Retrieved from

<https://gingerbread.org.uk/>

Gov.UK (2017) Childhood Obesity - a Plan for Action, Retrieved from

https://www.gov.uk/government/publications/childhood-obesity-a-plan-for

action/childhood-obesity-a-plan-for-action

Green, K., Smith, A., & Roberts, K. (2005). Young people and lifelong participation in sport

and physical activity: a sociological perspective on contemporary physical education

programmes in England and Wales. *Leisure Studies* (Vol. 24, pp. 27-44).

Griffiths, L.J., Cortina-Borja, M., Sera, F (2013). How active are our children?

Findings from the Millennium Cohort Study *BMJ Open, 3*.

doi:doi:  10.1136/bmjopen-2013-002893

Grossman, E. R. B. (2013). An Examination of Putnam, Coleman, and Bourdieu's

Conceptualizations of Social Capital and the Structural Differences across Class, Race, and

Gender Groups. In: University of Akron / OhioLINK.

Guillemin, M. (2004). Understanding Illness: Using Drawings as a Research Method*.*

*Qualitative Health Research* 17, S2, 272-289

Huddleston, H. R., Barry, V., & Caputo, J. L. (2016). School Day Energy Expenditure in

Elementary School Children. *Journal of Physical Activity and Health, 13*(9), 1010-1012.

Ignico, A., & Ethridge, K. (2006). The Effects of a Physical Activity Program on Low-Fit Children's Activity Level and Aerobic Endurance. *Early Child Development and Care*. 103-108,

[doi.org/10.1080/0300443971350108](https://doi.org/10.1080/0300443971350108)

Jago, R., Brockman, R., Fox, K. R., Cartwright, K., Page, A. S., & Thompson, J. L. (2009).

Friendship groups and physical activity: Qualitative findings on how physical activity is

initiated and maintained among 10–11 year old children. *The International Journal of*

*Behavioral Nutrition and Physical Activity, 6*. doi:10.1186/1479-5868-6-4

Kinnunen, S., & Puroila, A.-M. (2016). ‘If my sister was here’—The narrative in-between space

in young children’s photography process. *Childhood: A Global Journal of Child Research,*

*23*(2), 236-254. doi:10.1177/0907568215602317

Liamputtong, P. (2007). *Researching the vulnerable: a guide to sensitive research methods*.

London, Thousand Oaks, Calif: Sage

Moncrieffe, J. (2017). The Power of Stigma: Encounters with ‘Street Children’ and ‘Restavecs’.

*IDS Bulletin, 37*(6), 34-46. doi:10.1111/j.1759-5436.2006.tb00321.x

Nielsen, G., Grønfeldt, V., Toftegaard-Støckel, J., & Andersen, L. B. (2012). Predisposed to

participate? The influence of family socio-economic background on children's sports

participation and daily amount of physical activity. *Sport in Society* 15(1), 1-27

Noonan, R. J., Boddy, M. L., Fairclough, S. J., & Knowles, Z. R. (2016). Parental Perceptions

on Children's Out of School Activity and Family Based Physical Activity. *Early Child*

*Development and Care*, 187 (12), 1909-1924, doi/org/10.1080/03004430.206.1194409

Pearce, G., & Bailey, R. P. (2011). Football Pitches and Barbie Dolls: Young Children's

Perceptions of Their School Playground. In *Early Child Development and Care* (

181(10) 1361-1380, doi/org/10.1080/03004430/2010.529906

Putnam, R. D. (2001). *Bowling alone: the collapse and revival of American community*. New

York, London: Touchstone.

Quarmby, T., & Dagkas, S. (2010). Children's engagement in leisure time physical activity:

exploring family structure as a determinant. *Leisure Studies, 29*(1), 53-66.

doi:10.1080/02614360903242560

Ridgers, N. D., Carter, L. M., Stratton, G., & McKenzie, T. L. (2011). Examining children's

physical activity and play behaviors during school playtime over time. *Health Education*

*Research, 26*(4), 586-595. doi:10.1093/her/cyr014

Rose, S. E., Jolley, R. P., & Burkitt, E. (2006). A Review of Children's, Teachers' and Parents'

Influences on Children's Drawing Experience. *International Journal of Art &amp; Design*

*Education, 25*(3), 341-349. doi:10.1111/j.1476-8070.2006.00500.x

Rose, S. E., Jolley, R. P., & Charman, A. (2012). An investigation of the expressive and

representational drawing development in National Curriculum, Steiner, and Montessori schools.

*Psychology of Aesthetics, Creativity, and the Arts, 6*(1), 83-95. doi:10.1037/a0024460

Rudduck, J., & Flutter, J. (2004). *How to improve your school:giving pupils a voice*. London:

Continuum.

Stratton, G. (2000). Promoting children's physical activity in primary school: an intervention

study using playground markings. *Ergonomics, 43*(10), 1538-1546.

doi:10.1080/001401300750003961

Tzanakis, M (2013) Social Capital in Bourdieu's, Coleman's and Putnam's theory: empirical

evidence and emergent measurement issues *Educate­ -* 13 (2), 2-23

Thorburn, K., & Hibbard, S. (2008). Multimodal Conversations - Methods for Shared Moments

of Meaning with Vulnerable Young People. In P. Liamputtong & J. Rumbold (Eds.), *Knowing*

*Differently: Arts-Based and Collaborative Research* (pp. 141-166). New York: Nova Science

Publishers

Tomlinson, A. (2004) Pierre Bourdieu and the Sociological Study of Sport: Habitus, Capital and

Field 161-172 in Guilanotti, R (2004) (Ed) Sport and Modern Social Theorists, Hants,

Macmillan Palgrave

Vidoni, C., & Ignico, A. (2010). Promoting Physical Activity During Early Childhood. *Early*

*Child Development and Care*, 1261-1269. [doi.org/10.1080/03004430.2010.523786](http://dx.doi.org/10.1080/03004430.2010.523786)