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Researching pupil perspectives: the incorporation of a daily one-mile walk into the curriculum.

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Abstract

The aim of this research was to investigate the impact of incorporating a daily, one-mile walk into the primary curriculum. Such inclusion of compulsory movement during the school day is particularly important as the levels of childhood obesity in England are increasing in an upward trend. Questionnaires and interviews provided the format for data collection. The results from this study found that the primary-aged children positively received a daily walk. The whole sample felt that their levels of physical activity had increased as a result of completing a mile, and many children chose to jog or run parts of it. The pupils also perceived psychological and physical benefits of a daily walk. These findings support those in previous research suggesting that increasing levels of children's physical activity can boost self-esteem, concentration and alertness in school.

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Introduction

Physical activity (PA) in youth populations is often referred to in the context of preventing obesity and other diseases (Biddle & Asare, 2011). However, previous research (Centers for Disease Control and Prevention, 2010) has also correlated a high level of moderate PA with greater academic achievement within a school environment. More recent research has examined this correlation suggesting that PA does not directly influence a child's level of intelligence, but affects their achievement through secondary means: increasing alertness for example (Tremblay, Inman, & Willms, 2000). As a result, this research will examine pupils' perspectives concerning the incorporation of a daily one-mile walk into their school day in order to inform future teaching practice. It is necessary to identify the enjoyment concerning this compulsory activity as research emphasises that engagement will decrease if children do not perceive the prescribed physical activity to be enjoyable (Goodman, Sahlqvist, & Ogilvie, 2014). Furthermore, a secondary undertaking was to examine the preference of time-point at which the mile was completed and its subsequent impact. Additionally, further investigation into the walk's utilisation as a social activity, and as a replacement for other PA, is paramount. Lastly, the literature suggests that PA enhances attentiveness within the classroom. Therefore, it is imperative to identify PA's effect on classroom attitudes.

Literature Review

Eighty percent of children who are overweight continue this trend throughout their adolescent and adult lives (Lifshitz, 2008). This figure generates significant NHS costs and serious health and well-being consequences for these individuals. It should be noted at this point the difference in definitions between 'PA' and 'exercise': PA is any bodily movement produced by skeletal muscles that results in energy expenditure; exercise is a subset of PA, where the objective is to improve or maintain levels of physical fitness (Casperson, Powell, & Christenson, 1985). As a result, the walk

can be categorized as a form of PA, as opposed to exercise. The purpose of the walk was to keep the children active, particularly as research shows that children are often sedentary during their school day, even at playtime (Ridgers, Carter, Stratton, & McKenzie, 2011).

The large diversity in PA interventions in children makes it challenging to detect the moderators of effect sizes and clear patterns that relate to effectiveness. Many studies have focused upon PA levels in the realm of education, due to its mass delivery (Brunton, Harden, Rees, Kavanagh, Oliver, & Oakley, 2003), with emphasis being placed on changes to PE lessons and recreation times (Stratton, 2000). However, Willow Primary School incorporated a daily walk by halving the time for morning break and utilizing the extra time to complete a walk instead. As such, there was no detrimental effect upon teaching time. It is imperative to highlight that school is not merely a place of academia; physical, social, health and emotional education plays a huge role in a child's life education too (Formby & Wolstenholme, 2012). It is important for schools to approach their role from a holistic angle in order to tackle the many challenges faced by today's pupils. Examining pupils' perspectives can provide greater insight into how the children see the object of the walk and how they utilize that time. Such insight provides a detailed viewpoint from those it affects most.

Seghers, Vissers, Rutten, Decroos, and Boen (2015) state that in order for any PA intervention to be successful, children must enjoy participating in it. Therefore, examining the pupils' perspectives concerning factors that make the walk enjoyable is critical to ensuring longevity. Research highlights that providing concrete rewards for completing a challenge, such as the award of a certificate, can help stimulate children's interest in an activity (Hardman, Home & Lowe, 2009). However, for engagement and enjoyment to remain, intrinsic motivation – the want to partake for your own benefit – must be targeted. An effective way to achieve intrinsic motivation is to raise the levels of autonomy within the activity. Ryan and Deci's (2013) self-determination theory indicates that children's levels of autonomy can be increased by allowing them to choose the speed at which PA is undertaken, encouraging longitudinal participation (Mulvihill, Rivers, & Aggleton, 2000).

It is also relevant to examine the social aspect of incorporating a daily walk into the curriculum, as PA participation increases when perceived to be a social activity and a social norm (Field, Diego, & Sanders, 2001). This is particularly evident in populations where opportunities for participation in other PA outside of school might be limited. Furthermore, 'socially excluded' groups are more sedentary than those with higher socio-economic status (Hanson & Chen, 2007).

Pereira et al. (2007) provide evidence indicating that if PA is performed on a regular basis for several weeks, it can alter both brain functions that underlie cognition and behaviour. In addition, children who do at least an hour of daily PA have been shown to have heightened levels of attentiveness in their lessons (Colcombe & Kramer, 2004). Teachers in today's society are being expected to produce levels of greater academic achievement in a limited time span. Therefore, increased levels of focus and concentration during lessons could be utilised to maximise the opportunities for children to learn when they are in the classroom. Examining the children's perspectives of perceived psychological benefits, as well as their attitudes towards learning as a result of walking is of utmost importance. The children need to view the walk as producing benefits for it to be most effective.

Current research indicates that undertaking PA prior to school can increase a child's ability to concentrate to the equivalent level of someone half a year ahead in their studies (Bohm, 2012). Additionally, these 'active' children displayed heightened concentration for up to four hours longer than children who are driven to school. This equates to having heightened concentration levels for up to 60 percent of the standard school day, enhancing the likelihood of attentiveness and application during lessons. Due to logistics, it is unlikely children will have participated in PA prior to commencing school, unless they have actively commuted there. The number of active commutes within the U.K.'s school-aged population is very low (McMinn, Rowe, Murtagh, & Nelson, 2012).

PA also has many secondary applications, such as improving children's self-regulation and mental wellbeing (Anderson, Wojcik, Winett, & Williams, 2006). It has also been shown to increase children's focus and attention levels, resulting in improved productivity (Norlander, Moasa, & Archer, 2005). PA has also been found to decrease disruptive behaviour within the classroom (Haugland, Wold, & Torsheim, 2003). This has reportedly resulted from children feeling more relaxed and calm after having physically exerted themselves. Therefore, it is potentially the secondary effects that PA induces, which are particularly hard to measure, that have the possibility to inform teaching practice to benefit classroom atmosphere.

Research suggests that moderate to vigorous levels of activity are required to elicit physiological responses, producing positive classroom attitudes as a byproduct (Ryan & Deci, 2013). It is acknowledged that a walk would be unlikely to reach the threshold values distinguishing it as a moderate or vigorous form of PA. However, little research has been conducted on the effect of

short, mild bursts of PA upon children's abilities to concentrate and remain engaged and enthusiastic.

There is a gap in the literature base concerning the timing of daily PA, primarily because it is hard to measure and record levels of PA outside of school. However, with children spending a large proportion of their waking hours in an educational environment, schools are deemed a suitable platform for raising levels of PA to combat the global epidemic of childhood obesity (Ford, MacDonald, Owens, & Robinson, 2002). Previous research highlights that children's energy levels are naturally highest prior to commencing school, indicating that the morning might be their preferred time to complete a walk to release energy (Norlander et al., 2005). In contrast, large quantities of schools have adopted the approach of running extra after-school clubs in order to help raise PA. However, these are often associated with financial and time implications for parents, limiting their accessibility. Furthermore, each club will only appeal to specific pupils, restricting its inclusivity. Research has found improvements in the cognitive abilities of those enrolled on an after-school exercise programme (Davis et al., 2011). However, it should be noted that this correlation does not infer causation due to the large quantity of variables that influence cognition. This further supports the necessity of examining the pupils' perspectives concerning their attitudes and their perceived ability to learn after their daily walk.

Methodology

This study leant itself to the use of a mixed methods design: qualitative and quantitative methods were applied due to primary schools being such a context-specific setting. Individual interviews, conducted by the researcher, provided the format for data collection. This study was undertaken whilst on school placement for Primary PGCE (University of Cambridge). Institutional ethics approval was gained prior to collection, adhering to the guidelines outlined by Iphofen (2011). It was also necessary to elucidate the overall demographic of the pupils and their perspectives concerning compulsory daily exercise, in order to gain a better overall understanding of its effects. As a result, quantitative methods were applied to this research in the form of a questionnaire (see Appendix 1). This provided an overall illustration from a larger population size from which key findings were examined more deeply during interview. The resulting interview insights were used to support or disprove trends produced by the questionnaire to accommodate the findings being misrepresented through their chosen format (Fielding, 2012). The collected data was analysed and

portrayed in different formats to ensure a rigorous protocol, incorporating triangulation, had been followed (Denscombe, 2014). By using such methods, numerous personal experiences and interpretations of a one-mile walk's incorporation into the daily timetable were gained from descriptive data. Such interviews offer the possibility of gaining insight into pupil responses occurring in natural settings (Hammersley, 1992). They also create spaces for new understandings to emerge, which captures further in depth information (Walsh & Downe, 2005). Therefore, by examining the perspectives of the pupils, more detailed explorations of incorporating PA into each school day were obtained from those with first hand knowledge.

Participants

The pupils selected for interview were chosen through a purposive sampling method to ensure the participants had sufficient levels of communication. Additionally, these pupils had provided strong opinions in the questionnaire, which suggested they might provide deep insight into the posed research questions. The interviewees consisted of six children (10-11 years of age, with an equal gender split). Quantitative data was also collected from 16 other children in the class, totalling 22 participants.

Procedure

The questionnaires were collected simultaneously in a morning time slot when the children would normally be reading. Interviews were collected at a time of the participants' choosing to alleviate the influence of temporary mood states from affecting their responses (Hirt, Levine, McDonald, Melton, & Martin, 1997). Prior to each interview, both verbal and written explanations of the research were provided for the participants. The children were assured of confidentiality and reminded of their right to withdraw at any time. The interviews were conducted in the children's library, just outside their classroom. This helped create a comforting environment, minimising the risk of data being restricted through apprehension (Podsakoff, MacKenzie, & Podsakoff, 2012).

Interview Guide

An initial interview guide (see Appendix 2) was used to direct the major questions posed in the data collection, constructed from data gathered from the questionnaire. These were pilot tested with one non-participating child to allow the phrasing of questions to be adjusted, so further enhancing the

researcher's skill as an interviewer. Two questions were re-worded to help clarify their meaning. The guide consisted of three sections and was also informed by previous literature on PA, motivation and focus (Hellstedt, 1987; Barsade, 2002; Arnold & Fletcher, 2012). Section One contained an introductory set of questions used to gain surveillance data and generic information (e.g., *How long has the school been completing a mile's walk?*). This section was also used to gain a rapport with the participant and to encourage increased participation. Section Two was comprised of questions that developed the participants' interactions with the topic. Key questions concerning feelings post walk, which provided the greatest opportunity for the participants to reveal authentic insight, were also contained in this section (e.g., *Do you feel more or less alert after the walk? Can you tell me more?*). Section Three involved concluding questions on the subject matter, as well as reflective questions (e.g., *Have you any other comments about the interview?*). Where appropriate, the participants were encouraged to elaborate on their initial answers to provide further insight into their personal experiences.

Data Analysis

The interviews were audio-recorded and transcribed verbatim by the same researcher in order to minimize bias and to satisfy the need for low-inference descriptors (Johnson, 1997). The interviews ranged in length from 11 mins to 25 mins ($M = 16$ mins, $SD = 6$ mins). A thematic content interpretational analysis (Gibbs, 2007) was applied in order to analyse the qualitative data. This involved manually extracting raw quotes of meaningful information and constructing groups with similar themes, in accordance with the step-by-step process outlined by Côté, Salmela, Baria, and Russell (1993). Lower and higher order themes were then extracted from the raw data. These were collated into overall general dimensions and illustrated by hierarchal content trees (Fletcher & Arnold, 2011). Lastly, a frequency analysis of the themes was undertaken to reflect how many participants mentioned each theme (Chi, 1997). Furthermore, data extracted from the questionnaires has been illustrated through the incorporation of figures. This follows the advice of Marshall (1996), who highlights the importance of representing data visually to depict demographics of sampled populations.

Validity and Trustworthiness

Evaluating the qualitative data to the best of the researcher's ability requires that certain criteria for validity, as set out by Davies and Dodd (2002), should be fulfilled. To ensure the production of authentic themes, a *critical friend* was employed (Golafshani, 2003). This *friend* acted in the role of a second researcher by analyzing the original interpretation of data and its allocation to a specific lower order (LO) theme and subsequent higher order (HO) themes. Further to this, by presenting raw quotes alongside the hierarchal content trees, it is hoped that the readers will clarify for themselves whether the data has been suitably allocated (Johnson, 1997). The quantitative data was analysed using Excel and represented through tables and figures. It is acknowledged that the original questionnaire producing the quantitative data was created by the researcher and, therefore, did not fulfil any suitable coefficients for reliability or validity. However, the questionnaire's main purpose was to gain insight into the research field and assist in creating an interview guide.

Ethics

In order to satisfy ethics guidelines outlined by the British Educational Research Association (BERA, 2011), parental permission was sought due to the participants being under the age of 18 years old. As a result, the parents received a letter in hard copy outlining the nature of the proposed research and their child's participation. The letter contained an opt-out form. This form was to be completed and handed back to the class teacher if the parents did not wish their child to take part. It should be noted at this point that the school policy ensured that all children participated in the walk. No withdrawals were received within the specified time allowance of a week. The researcher was also present each morning and afternoon, by the classroom entrance, ready to answer any questions parents may have had about the research; no questions were posed.

The collected interviews were allocated numerical codes in the transcribed data to ensure anonymity of any personally identifiable information. Names were also coded. Furthermore, both the participants' and school's names have also been changed to protect anonymity, whilst allowing for ease of reading in this essay.

The interviewed children had the interview process verbally explained and were also provided with an information sheet. They were then verbally asked if they wished to participate in the study. The children were given at least a 24-hour period to digest this information and to provide their consent.

This was to ensure that the children did not feel under duress or pressurized to take part in the study, in accordance with guidelines set out by BERA (2011). Immediately prior to interview, the children were reminded of their right to withdraw at any time-point, in order to keep the interests of the child of primary importance (United Nations Convention on the Rights of the Child.). Recorded and collected data, as well as the transcribed interviews, were kept on the researcher’s own laptop under password protection. They will be destroyed after a suitable amount of time in accordance with the Data Protection Act of 1998.

Results

The transcripts produced 173 raw data quotes, which were divided into 19 lower order themes and 5 higher order themes. The themes concerned the perspectives of the incorporation of a mile walk into the children’s daily curriculum. These consisted of participation and engagement; location and time; social aspect; health impacts; and perceived after-effects. All the HO themes are discussed, and selected LO themes explored in further detail, with descriptive quotes and figures used to illustrate the context of the data (Beck, 1993).

Participation

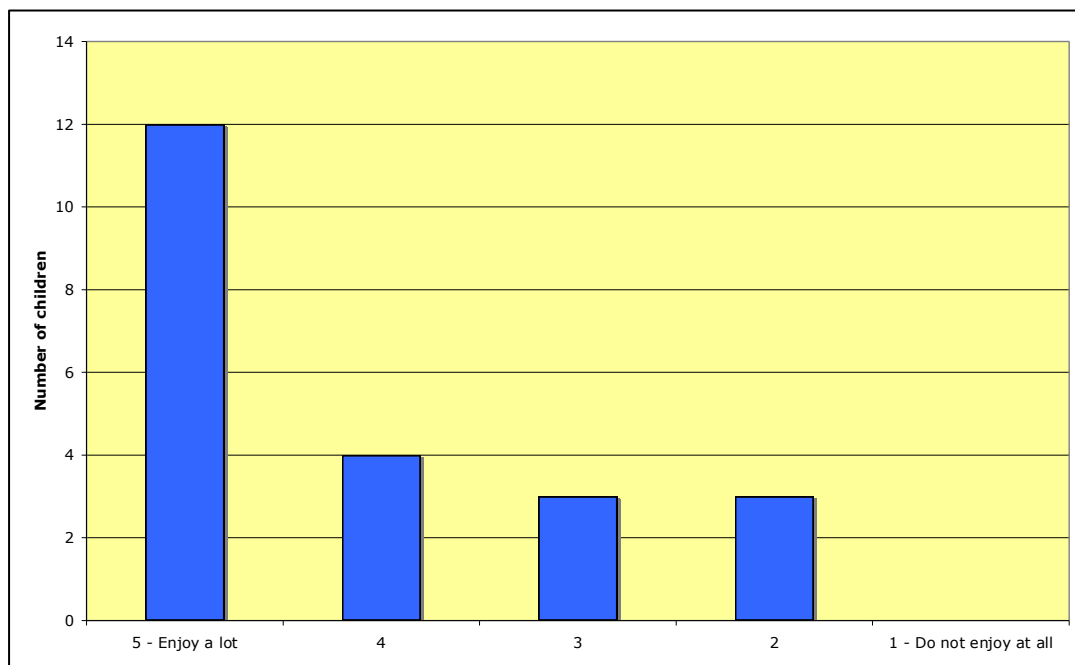


Figure 1: Perceived enjoyment of the daily walk

It was evident from observing the children’s attitudes when ‘walk time’ was announced that the children enjoyed the PA. This was confirmed by 73 % of children enjoying the walk ‘mostly’ or ‘a lot’ (see Figure 1).

However, at the beginning *‘I didn’t want to do it. Because you have to do a mile and that’s 7 laps and I didn’t want to go out in the cold... Now, I really like it’*. (Lara)

In support of the aforementioned statement, the interviews provided insight into a period of scepticism during the initial incorporation of the walk illustrating that it took time to become accustomed to.

The most cited LO themes regarding why the children actively participated in the walk were enjoyment, its ability to break up the day, its provision of a challenge and an energy release as Table 1 and the quotes below illustrate:

It breaks up the morning, especially as it is quite a long time until lunch and can get a little dull. I prefer it when it when we walk between the lessons to break it up again. I’d like to do two walks in the day really. (Charlie)

When I’m in the classroom, I keep on fiddling with stuff sometimes because I’m really full of energy. It helps to get rid of that. (Chris)

The walk just gives you a break to switch your brain off for a little while. Then you can come back in and switch it back on again, but it’s had a little rest. (Daisy)

Frequency	Lower-order Theme	Frequency	Higher-order Theme
13	Challenge	28	Engagement
12	Enjoyment		
6	Break from classroom		
4	Energy release		

Table 1: The themes mentioned as to why the children like to participate in the daily walk

The children also relished the challenge based elements to the walk. They were challenged originally to complete half and full marathons for a certificate in assembly:

We collect cubes and then record how many we got at the back of our books on to a graph. That way, we can try and beat how many we have got and we have to walk faster and faster every time! (Will)

The rewards are no longer needed and Daisy highlighted this saying, ‘*I like to just challenge myself and see how many laps I have done*’.

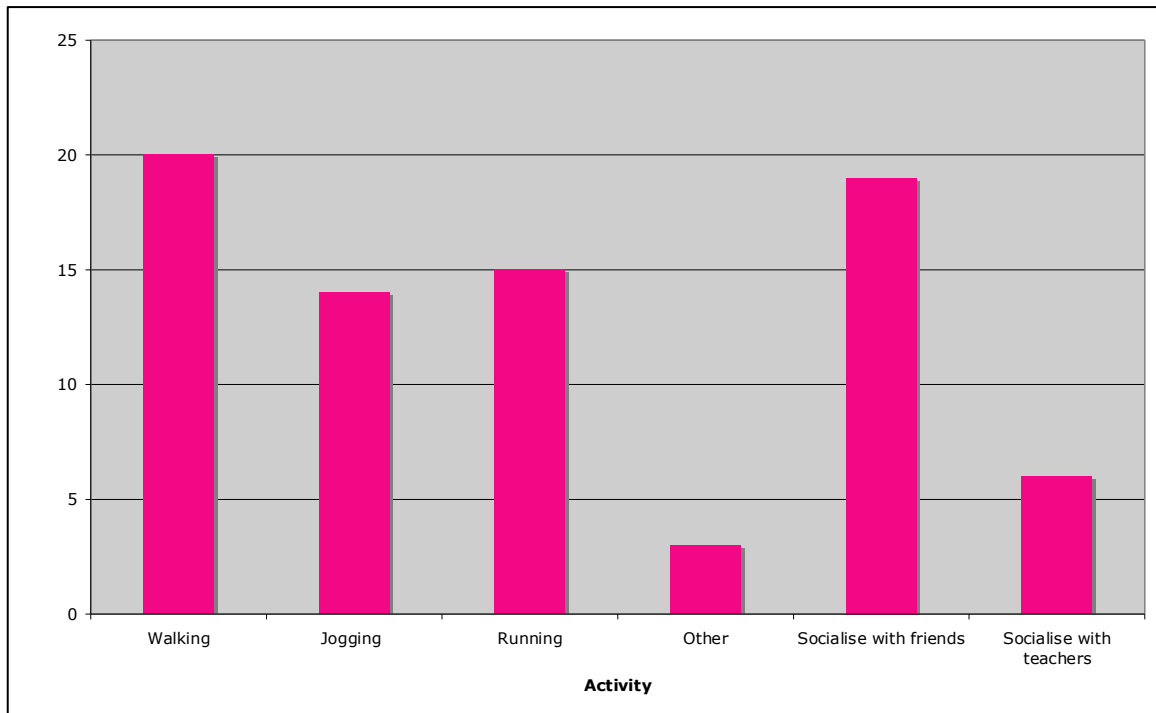


Figure 2: The activities that children undertake whilst completing the walk

In addition to the children wishing to challenge themselves, Figure 2 illustrates that most of the children choose not only to walk, but also jog and run.

Furthermore, Will summarises that he likes the walk as a form of PA and often chooses to run:

It is a bit your own speed type of thing. You're never racing against each other but only against yourself to try and beat your first score. It removes the competitive element out of it which is nice for someone who is not necessarily very good at sport.

Lara emphasises that,

In football, all the people are better than me. In rugby, all the people are better than me. I'm not so good at tennis but I can run when it's not a competitive sporting thing in PE. It makes me feel good about myself, which helps my confidence. If I feel confident in something then I try hard and keep going.

These quotes highlight that self-efficacy plays a determining role in the perceived enjoyment of an activity.

Health Impacts

Figure 3 indicates that a large proportion of the children undertake other forms of activity outside of school during the term time.

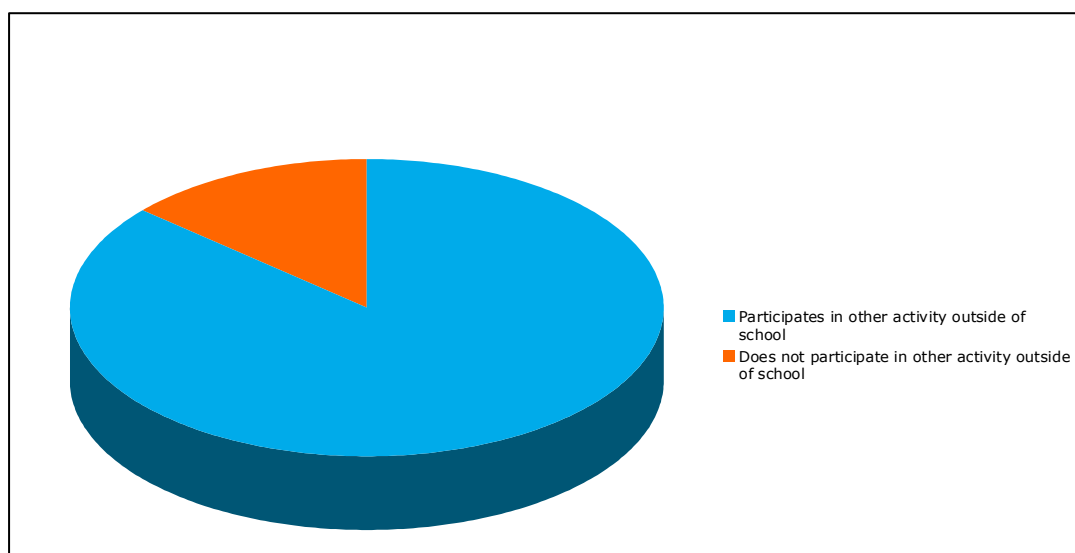


Figure 3: The proportion of children in the class who participate in other physical activity outside of school and those who do not

This suggests that the children do not substitute the mile walk at school for other forms of PA. In fact, they perceive that the walk increases their levels of daily activity:

I wouldn't be so active in school if we didn't have it as most of the time we are sat in the classroom working, which isn't very physically challenging. (Will)

Daisy expands on this further:

I have definitely become more active since we have started walking. It encourages me to get up and go and do something, instead of being sedentary, which is what I do during breaktime.

The children mentioned their initial anger at having their morning time allocation for break halved in order to accommodate time, but Chris mentions that he would,

Normally sit on a bench in break. Now though, I know that if I don't have an evening activity, at least I've been outside for that bit of time earlier in the day when I was at school. It keeps me healthy, which is important as we have SATs soon.

Lily also states that,

'It's harder, now it is always dark [during the winter months], to be active outside of school'.

Additionally, it is important to note that although Willow Primary School only had a small number of children with pupil premiums and was located in an area of high economic status, Lara remarked that *'the walk is the only thing I do as exercise on a day-to-day basis'*.

A reoccurring theme throughout the transcribed data was that the children felt more active during their school day since the walk's introduction (see Table 2).

Frequency	Lower-order Theme	Frequency	Higher-order Theme
21	Perceived increased levels of daily activity	28	Health
14	Feel more healthy with walk		

Table 2: The themes extracted from the raw quotes incorporating health aspects

Not only did the walk enhance PA levels in children, but it also provided them with a chance to increase their mental wellbeing, which the following quote highlights:

I think it gives me a bit of a rejuvenating boost, and makes you forget about the lesson before. That gives you a fresh page to start the next bit of work from, so if you've been feeling a bit

wobbly and not confident in something beforehand, you've had time to recover, to reflect and to forget about it and to move on. (Daisy)

Location and Time-point

Throughout the interviews (see Table 3), it was evident that the children *'much prefer being out on the field than being in the playground'* (Lily). Chris attributed this to *'liking the bigger open space and getting away from the classroom environment.'*

Frequency	Lower-order Theme	Frequency	Higher-order Theme
5	Preference for field location	27	Location and time point
15	Morning time point preference		
3	Cold temperature preference		
4	Longer walk preference		

Table 3: The themes concerning location and time point of the daily walk

Figure 4 illustrates that 82 % of children prefer undertaking the walk during the morning.

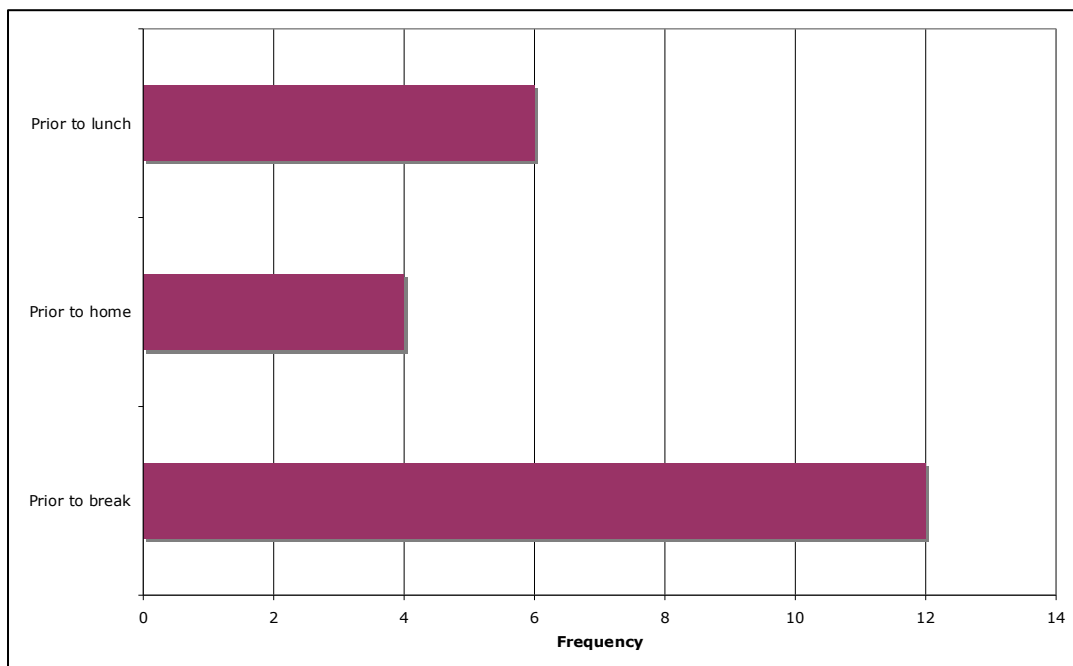


Figure 4: The time point preference for the daily walk

The quotes below provide insight into this preference:

I do like to learn but it [the walk] is better in the morning when I can use it to release some energy so I don't get so distracted. The morning can be quite long for me not to get restless in otherwise. (Chris)

I think the change of scenery helps. You can become a bit tired of sitting in the classroom all day and in KS2 we don't have a break in the afternoon. (Daisy)

Data from the questionnaire indicated that none of the children wanted the walk's time or distance to be shortened. In fact, 77 % wished for the walk time to be extended and the remaining 23 % wished it to remain the same.

Social Aspect

As Figure 2 shows, a large proportion of children enjoyed communicating with both their peers and teachers during their mile walk. This highlights this time as being key for building relationships, primarily with the teachers. Charlie states that,

I like talking to the teachers... we don't see them at lunchtime so it's really the only time we have with them to get to know them properly. They like to ask us questions that we wouldn't normally have time to answer too.

Lily also uses this time to ask teachers questions:

Usually a bit more personal questions that I just want to chat through with someone

Frequency	Lower-order Theme	Frequency	Higher-order Theme
18	Socialise with friends	39	Social aspect
11	Socialise with teachers		
6	Socialise with other year groups		
4	Key time for relationships to be built		

Table 4: Themes mentioned by the children relating to social aspect

Furthermore, the children perceived this as time to engage with children from other year groups and form relationships within the wider school community (see Table 4).

Perceived after-effects of the daily walk

The overall consensus from participating in the daily walk produced a surprising number of perceived after-effects (see Table 5) that directly influenced the children’s attitudes in the classroom.

Frequency	Lower-order Theme	Frequency	Higher-order Theme
8	Increased calmness	48	Perceived after-effects
14	Increased relaxation and/or decreased tension		
10	Increased brain engagement and or/concentration		
12	Reenergised and remotivated		
6	Increased alertness		

Table 5: The emerging themes concerning perceived after effects of a daily walk

These themes are supported by the following insightful quotes:

My tiredness levels don’t really change, in fact I think it has the opposite effect and makes me feel more energetic. (Charlie)

I definitely feel more relaxed [after the walk] as you’ve got all of that energy out of you that was pent up inside. You’re then ready to, I don’t know how to put it, but ready to clear your head. It clears your brain a bit so you can then refill it with the next lesson. (Will)

It definitely makes me feel more awake, but also a bit more achy. I sometimes get physically tired and out of breath but mentally it helps me to stimulate my brain. (Chris)

I do get a bit tense. I find that the walk helps just release some of that tension a bit. (Lily)

As Figure 5 (below) illustrates, alertness, concentration levels and motivation levels are perceived to be increased post walk. This correlates with a moderate number of individuals feeling less tired than prior to the walk.

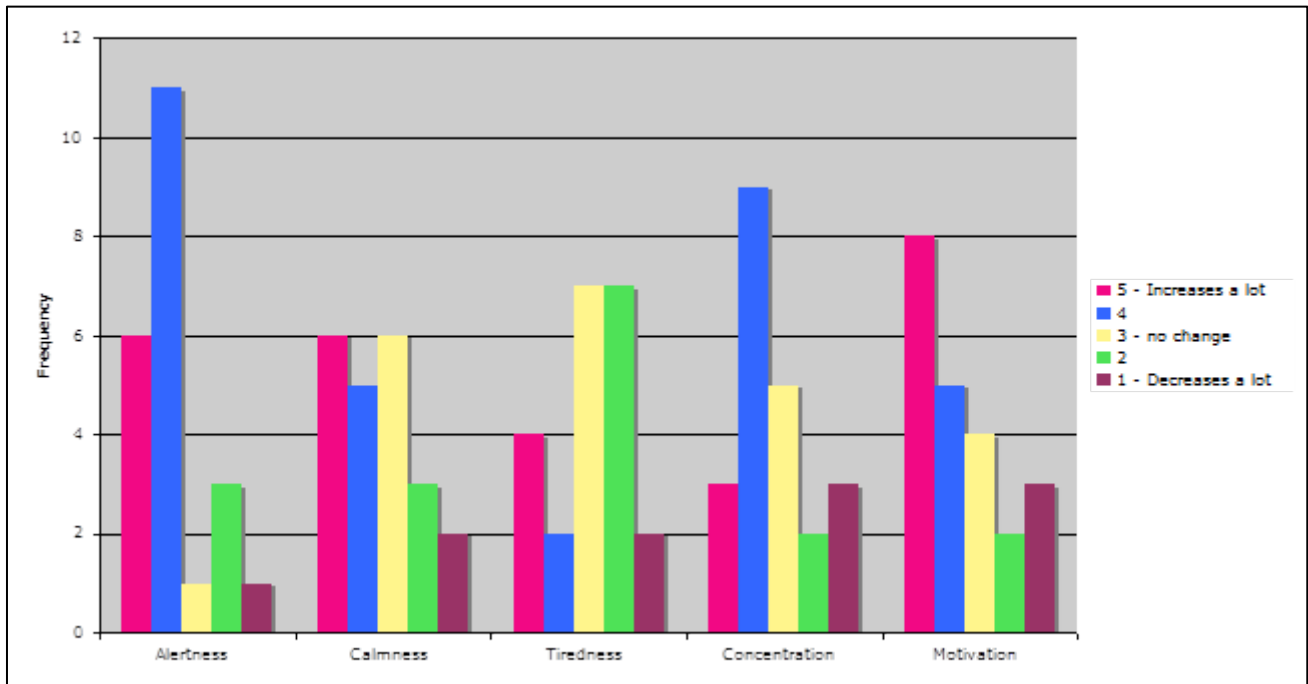


Figure 5: The perceived after-effects directly post completing the walk

It is evident that even this mild form of PA can have positive effects on the children’s wellbeing. As a result, their attitude towards learning directly after the walk was more focused and enthusiastic. Observational notes also supported this trend.

Discussion

It was evident that the overall consensus of incorporating a mile’s walk into each child’s daily timetable was very positive. In fact, the children perceived many psychological and physical benefits, as well as purely enjoying the walk. Brunton et al. (2003) emphasise that children will not show longevity in PA unless they are enjoying themselves. In contrast with Smith (2004), who identifies with the necessity of providing extrinsic rewards, such as certificates, to encourage participation, the children were intrinsically motivated to challenge themselves. This was shown by the children often jogging and running parts to increase their distance. Many also highlighted the boost to self-esteem that came with beating their own previous target. It was clear that the children

enjoyed the independence the teachers had afforded them, instilling trust in the pupils' ability to count and record their own number of laps accurately. Ryan and Deci (2013) note that such intrinsic motivation filters down to ensure engagement and self-determination are achieved.

Although the walk is undertaken as a whole class, it is primarily an individual activity. As a result, the children were afforded the choice of speed and activity each day whilst fostering a community feel. Therefore, this research suggests that autonomy was critical in raising levels of engagement. Additionally, creating healthy behaviour patterns at a young age also encourages children to increase their long-term levels of PA by maintaining these healthy behaviours in the future.

Each of the children stated that they thought their levels of daily activity had increased. This supports Stratton's (2000) research that a school can play a particularly influential role in helping raise the PA levels of children, and that PA's appeal increases when the communal competitive element is removed. This reinforces the necessity of making PA fun and individually challenging, simultaneously (McMinn et al., 2012). In corroboration with work by Carson and Spence (2010) suggesting that lack of daylight hours can limit PA participation after-school, the walk ensures that all children have had undertaken at least 15 minutes of PA each day. Furthermore, the walk was found to supplement other PA outside of school, as opposed to replacing it.

Another theme to emerge from the research was the appreciation of the pupils in having time to talk with their teachers during the walk. This research highlights that a teacher plays a much larger role than guiding the child through academia. In accordance with Merritt, Wanless, Rimm-Kaufman, Cameron, and Peugh (2012), a teacher is often perceived as an adult whom the pupils trust and seek life, emotional and social advice from. This walking time provided a critical opportunity for each child to gain one-on-one quality time with his or her teacher, who can often be '*inaccessible outside the classroom*' (Daisy). Pianta and Stuhlman (2004) stress the positive effect that a mutual, trusting teacher-pupil relationship can have on the child's wellbeing, but also their willingness to learn.

The children preferred the walk to occur in the morning, prior to lunch. This predominantly stemmed from only having a 15-minute break in four hours during the morning otherwise. However, they also noted that they enjoyed the break from the classroom, getting fresh air and becoming '*re-energised*'. Furthermore, the children perceived increased levels of alertness, concentration and motivation after the walk. This then helped them to remain '*focused*' in their next lesson, particularly as the walk afforded the opportunity to release any extra restless energy,

minimising '*fiddling and distractions afterwards*' (Bohm, 2012). These perceived after-effects support work by Chang, Labban, Gapin, and Etnier (2012) who suggest that PA induces a more positive classroom atmosphere, encouraging further learning and productivity. As a result, schools need to examine carefully their ability to incorporate PA in order to offer their children the best start to their learning on a regular basis. It should be noted that those children who reported more negative after-effects also reported greater levels of tiredness. Therefore, it could be gleaned that over-exertion in completing the mile contributed a negative impact on attitude in the classroom afterwards. However, further research needs to be conducted concerning the optimal distance and speed that the walk should be undertaken at.

Conclusion

Overall, this research suggests that children enjoy the incorporation of a mile walk into their daily timetable, particularly when undertaken in the morning. In addition, the walk helps to increase the levels of PA of all children. It was shown to provide a key time for relationships with peers and staff to be fostered, and induces many positive classroom after-effects, culminating in increased attentiveness. These effects are conducive to supporting the children's ability to learn.

Critical Reflection

The methodology adopted throughout this research was intended to be as rigorous as possible. Without intention, and having reconsidered the methods of best practice, the letters of consent sent out to parents should have incorporated an opt-in clause, as opposed to an opt-out. This would have ensured that the parents were actively willing for their child to consent, rather than presuming that consent was given. There is a possibility that the parents may not have received or inwardly digested the contents of the letter informing them of the proposed research and its corresponding methods. Therefore, I could have inadvertently interviewed a child who did not have consent. However, it should be noted that the school's policy dictated that all communications and request forms followed an opt-out basis. For this reason, it was chosen to cooperate within the school's guidelines, as the parents were accustomed to it. Furthermore, the best way to seek parental consent was discussed with the head teacher, who also suggested an opt-out clause. The head teacher additionally signed a consent form to say that she had given her permission for the research to be

carried out on the children *in loco parentis*. In order to satisfy ‘best practice’, BERA (2011) stresses the necessity of active parental consent, including ensuring that the research has been fully comprehended. In order to ensure full and active consent from the parents, it would have been necessary to ensure that permission slips were completed if the parents wished their child to partake.

Applying a thematic interpretational content analysis to the information, which was gathered from semi-structured interviews, allowed hierarchal thematic trees to be constructed. These trees were cross-referenced with a *critical friend* but are only interpretations of where the themes should be located. It should also be noted that although key themes are likely to have a high frequency tally, the relationship between frequency and importance is not directly correlated, particularly as the frequency only depicted how many participants mentioned them (Weinberg, Butt, & Knight, 2001). Both time and logistical constraints prevented a larger sample size and, consequently, it is acknowledged that the findings lack the ability to be generalized to the whole school age-spectrum. However, as this research was an exploratory study within a novel context, the results only intend to act as signposts in highlighting children’s perspectives concerning prescribed daily exercise in the form of a walk. Further studies should be conducted to examine the best time of day and speed to complete the walk.

It is noted that the sample population was only taken from Year Six. Therefore, gaining the perspectives of differing age groups would have allowed for further analysis and comparison of data (Hirt et al., 1997; Johnson, 1997). As a result, gaining data from other age groups would be imperative to gaining a more detailed insight into the perceived effect of incorporating a daily walk into the school curriculum. This would have increased the credibility of the data, reducing biases. As a result, stronger trends may have been able to be identified, increasing the validity and reliability of the findings.

Gale, Heath, Cameron, Rashid, and Redwood (2013) draw attention to the advantage of having an independent researcher to minimise bias. This may have been particularly influential if the children felt pressured to provide members of staff with answers they felt they should give. However, conflicting research highlights the probability of children being more likely to open up to a figure with whom they previously built a rapport (Merritt et al., 2012).

Future implications

The importance of providing children with an opportunity must come at the forefront of teaching practice. In this case, incorporating a mile walk into my own class timetable would provide each child with the opportunity to become more physically active in his or her daily life. This would ensure that regardless of socio-economic status or family background, every individual would complete at least 15 minutes of mild exercise per day. Additionally, I would like to challenge the children to complete a further distance to foster intrinsic motivation and participation. At the beginning of the walk's introduction, it was reported that the children were offered extrinsic rewards and I think this would be a useful resource to include to foster excitement. The certificates quickly became unimportant to the children at Willow Primary but acted as a way of encouraging positive approaches to the walk. Moreover, I would ensure the emphasis was placed on completing and accurately recording results in order to monitor self-improvement. This involves trust but shows that I, as the teacher, have respect for the children and believe they will make the right decision in being honest with their results.

It was reported by all of the children that they varied the pace at which they undertook the walk, often interspersing walking with jogging or running sections. One boy was known to complete the mile as a run, and discovered an unknown talent for long-distance running; he had never been provided with the opportunity to run on a regular basis before. Therefore, I would seek to provide any individuals in my care with the opportunity to engage with PA. Additionally, PA encourages elements of perseverance, determination, and self-challenge. Such character traits are often fostered within a school, but I would seek to enhance them through the incorporation of a daily walk. These traits culminate in raising the child's level of self-efficacy, whilst also tackling the global obesity epidemic at a very micro-level. I would hope that by creating healthy behaviours at a young age, these might transfer with the children into healthy behaviours they maintain into their adult lives.

Although further research is required, I would hope to include a daily walk into the curriculum of my class in order to raise levels of attentiveness. The psychological effects of exercising in order to re-stimulate the brain have been well researched and there is always a time point in the day when the children would benefit from being removed from the classroom environment and given the possibility of becoming rejuvenated. The children reported that the morning was their preferred time to undertake the walk, due to the length of time being sedentary between arrival and

lunchtime. A mile walk is an opportunity for everyone, teachers and teaching assistants included, to refresh themselves for the next lesson. Having the autonomy as a teacher to implement the walk at a suitable time point in relation to the children's needs would be particularly beneficial.

Following on from the aforementioned point, this research supports the wider body of literature suggesting that PA can increase levels of concentration and focus within the classroom. The children reported factors concerning self-regulation, helping them to recommence lessons after the walk in a more positive mindset. I believe that psychological wellbeing plays an imperative role in the ability of a child to learn. In agreement with Maslow's hierarchy of needs (Maslow, 1943), incorporating a daily walk into the timetable would also enhance feelings of belonging to a group. This cohesiveness helps create a classroom atmosphere of inclusion and support. These two factors fundamentally underpin the characteristics I hope to emulate in my own classroom.

The children fed back that they preferred walking on the football field as opposed to the playground. This was attributed to enjoying '*big, open spaces*' and '*just being able to look at things that change*' (Chris). I believe the latter quote, in particular, highlights the importance of the learning that can take place outside the classroom, for example examining nature. The walk would provide me with an opportunity to get to know my pupils on a more personal level. I hope to know their characteristics and interests regardless. However, I feel that quality one-on-one time, in a neutral environment, would help to build relationships built on mutual respect. Such relationships then feedback into planning sessions, to incorporate children's interests, but also to gain an insight into how they are feeling as a person at that time. This will help further a trusting relationship where I hope my pupils will feel comfortable talking to me about their worries and concerns.

In conclusion, the pupils' perspectives provided me with enough evidence to support replacing an all too often inactive playtime with a daily walk. I believe that such a walk could have great positive influence not only within my classroom, but upon the children's wider lives.

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Appendix 1

An example of the questionnaire completed by pupils.

Questionnaire concerning 15 minute walk

Please could you complete all of the sections. All data will be anonymised so you cannot be identified. Many thanks for your help with this study.

Initials (optional) WP

Gender: M F

Which activities do you like to undertake when completing the 15 minute walk (tick all that apply):

- Walking
- Jogging
- Running
- Other sport (ie. Skipping)
- Talking with friends
- Talking with teachers
- Other activity (please specify) _____

Which time point do you prefer completing the 15 mins:
Prior to break Prior to lunch Prior to going home

On a scale of 1-5 (please circle)

	Not at all				A lot
How much do you enjoy The 15 minute walk?	1	2	3	4	<u>5</u>
Do you feel more alert afterwards?	1	2	3	<u>4</u>	5
Do you feel more calm afterwards?	1	2	3	4	<u>5</u>
Does it make you feel tired?	1	2	3	4	<u>5</u>
Do you think it increases your concentration in class afterwards?	1	2	3	4	<u>5</u>
Does it raise your levels of motivation?	1	2	3	4	<u>5</u>
Do you partake in other physical activity outside of school?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

If yes, please state what you do
Swimming, tennis, park run etc.

Would you like it to be longer than 15 mins? Yes No No change
Would you like a shorter time than 15 mins? Yes No No change



Appendix 2

Original Interview Guide to assist with data collection.

Interview Guide

Introduction and re-read information sheet.

Questions:

Section One

How long has the school been completing the daily, mile walk?

What did you think of introducing a daily walk to begin with?

And now, do you enjoy it?

Section Two

What pace do you usually complete the walk at – run, walk?

What else do you like to do?

Who do you tend to socialise with?

How do you remember how many times you went round?

Do you think it makes you feel calmer afterwards?

Do you feel more or less alert after the walk? Can you tell me more?

How does it affect your levels of concentration?

How does it affect your motivation levels?

How does it affect your levels of tiredness?

Which time point to complete the walk do you prefer and why?

Would you prefer the walk to be a longer or shorter time? Can you explain your reasoning?

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Section three

Is the walk your only physical activity every day?

If not, what and how much do you do outside of school?

Have you done more or less activity since its incorporation do you think?

Is there anything else you'd like to add about the walk?

Thank you for taking the time to chat to me today.