"I'm doing something fun…": Primary school pupils' perceptions of physically active lessons

Thomas Quarmby [a], Danielle Powell [b] & Andy Daly-Smith [c d e]

[a] Carnegie School of Sport, Leeds Beckett University, Leeds, UK

[b] Department of Sport, Leisure and Childhood Studies, Munster Technological University, Ireland

[c] Faculties of Life Sciences and Health Studies, University of Bradford, Richmond Road, Bradford, UK

[d] Centre for Applied Education Research, Wolfson Centre for Applied Health Research, Bradford Royal Infirmary, Bradford, UK

[e] Centre for Physically Active Learning, Faculty of Education, Arts and Sports, Western Norway University of Applied Sciences, Norway

*Corresponding author: Email: t.quarmby@leedsbeckett.ac.uk

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Abstract

Purpose: This paper sought to extend our understanding of primary school pupils' experiences and perceptions of physically active lessons (PAL) in comparison to traditional classroom lessons. Method: It draws from qualitative data captured through nine focus group interviews (utilising write, draw, show and tell, and puppets) with year 5 and year 6 pupils. Results: Data were analysed using inductive and deductive procedures. Findings highlight that pupils perceived traditional lessons to be teacher-centred, boring, and sedentary. In contrast, pupils recognised that the teacher became a facilitator of learning in PAL, which created more social interaction and enjoyment.

Keywords: Physically active lessons, movement integration, pedagogy, pupil perceptions

Introduction/Purpose

Recent attention has been placed on the importance of adopting classroom-based physical activity (PA) across the whole school day to increase overall PA levels for children (1). Broadly speaking, the reasons for the increased attention on classroom-based PA are twofold. First, the majority of children and young people's waking time is spent in school, and increasingly, this time is being spent in sedentary behaviour (2). This is problematic since sedentary behaviour in children is associated with unfavourable body composition, decreased fitness, lower self-esteem and pro-social behaviour, and decreased academic achievement (3). Moreover, primary schools are seen as ideal places for promoting increased PA, since they reach most children irrespective of their socio-demographic background (4). Second, there is increasing recognition of the value of PA for academic attainment (5-6). For instance, PA may have a beneficial effect on academic performance, depending on the dose (7). Sneck et al. (8) conducted a systematic review of the effects of school-based PA on maths performance in children. Of the 29 PA studies included, a positive overall effect on maths performance was found in 45% of the studies (8). The meta-analysis for 11 studies also showed an overall small positive effect (d=0.23) of school-based PA interventions on children's maths performance, suggesting that increasing school-based PA can have positive effects on academic performance (8).

Further, the Creating Active Schools (CAS) framework - the first UK-based co-designed whole-school PA framework - identifies curricular lessons (and classroom-based PA i.e., incorporating PA into class time) as a key site for PA promotion (9). Importantly, classroom-based PA takes three distinct forms, including: (i) *physically active lessons (PAL)*, whereby lesson content and learning occurs through engaging in movement and PA (10), (ii) *curriculum-focused active breaks,* which comprise of short bouts of PA with curriculum content integrated (10), and finally (iii) *active breaks*, where PA is used as a stand-alone activity that provides a

'break' from academic instruction within or between lessons, with no curriculum content included (10).

The first of these – PAL – has been recognised as a key paradigm shift in primary school teaching and learning (11) with evidence suggesting it can increase primary school pupils' moderate-vigorous PA (MVPA) (6,12) as well as enhance various facilitators of learning such as on-task behaviour (5,13), cognitive function (10,14) and perceived competence and effort in the classroom (15). As such, the growth in PAL has been met with increased interest with researchers exploring how such interventions are implemented and the challenges faced by key stakeholders, namely teachers (11,16-18). However, despite the benefits of PAL, and our emerging understanding of the challenges teachers face in implementing them, the voice of pupils, as the beneficiaries of the lessons, remains largely hidden, with most studies drawing from adult perspectives (1). In addition, there is limited international literature to draw upon to understand how children experience and perceive PAL in comparison to traditional lessons, which may provide another rationale for its in/exclusion within classrooms.

Two Irish studies have sought to describe primary school pupils' experiences of PAL. McMullen, MacPhail and Dillon (19) and Martin and Murtagh (20) reported that pupils enjoyed movement within lessons, especially when interacting and participating with peers. They noted that pupils thought they learnt better when moving and that PAL specifically, had an impact on their health and fitness (19,20). Martin and Murtagh (20) also found that pupils felt energised and healthy following PAL lessons (20). A further study by Drystad et al. (21) conducted with 30 primary school pupils, echoed these findings, whilst also noting that pupils felt some PAL lessons were still repetitive and not challenging enough, seeking more variation within PAL activities. Moreover, primary school children have also reported that PAL supports positive emotional and cognitive engagement in lessons (22). While these studies provide some initial insight into how primary aged pupils perceive PAL (and movement integration in the form of

active breaks, more broadly), there remains a need to continue to engage with children as key stakeholders and recipients of the lessons. This study therefore specifically aimed to extend our understanding of primary school pupils' experiences and perceptions of PAL in comparison to traditional classroom lessons.

Methods

Study design

This paper draws on data from a project that consisted of a pilot 6-week PAL intervention in one rural primary school in the North of England. The school itself resides in a relatively affluent area, with just under 10% of pupils eligible for free school meals in comparison to the national average of 24% (23). The pilot intervention sought to explore the feasibility of delivering PAL and evaluate the impact of active lessons on primary school pupils' fitness, PA, and learning. This broader project also conducted a process evaluation with key stakeholders to assess efficacy, enjoyment, and enthusiasm for learning. The pilot intervention involved one year 5 teacher delivering PAL both within and outside of the classroom (i.e., using the outdoor environment) to a class of 28 pupils, while a year 6 class (of 26 pupils) acted as the control group. Both groups were determined by the school. The year 5 teacher was supported by a researcher and the Head Teacher at the school with weekly reflective meetings to help plan sessions for the following week.

The focus of this paper draws explicitly on the qualitative data from the process evaluation exploring pupils' experiences and perceptions of both PAL and traditional classroom lessons, captured before and after the intervention took place. As such, the standalone qualitative component of the broader study was informed by an interpretivist paradigm allowing children to be viewed as both individuals and as part of a larger social organisation – i.e., the school (24).

Ethical approval was granted prior to any data collection by the lead authors institutional ethical review board. Written consent was obtained from the Gatekeeper (Head Teacher), classroom teachers, and parents, and pupil assent was also collected.

Focus group interviews

Interviews with children in a group are thought to be built on circumstances with which they are familiar (25). As such, focus group interviews were employed to explore pupils' experiences and perceptions of PAL and traditional classroom lessons as part of the evaluation of the intervention. As noted in Table 1, nine focus group interviews were conducted before the intervention, with a further nine completed post intervention. All pupils whose parents provided consent engaged in the focus group interviews across both classes. Each focus group interview comprised of between 4-6 pupils (of the same sex in an effort to try and create an atmosphere in which children felt more comfortable) and lasted between 22-45 minutes (average time=33 minutes). The same pupils were grouped together for both the focus group interviews pre- and post-intervention, though at follow up, numbers differed due to attendance on the day. The focus group interviews took place during the school day, in a quiet, empty school classroom where participants and researcher were visible to staff at all times but could not be overheard. Ensuring school staff could 'see' the interview taking place provided a level of safety for the lead researcher, while ensuring it could not be overheard, meant that children could speak freely without fear of judgment from a teacher in relation to how they experienced classroom lessons. Graue and Walsh (26) have argued that research with children should be a creative endeavour, and one that challenges researchers to be imaginative and inventive. In recognising that children possess different competencies and capacities, and that they may be more skilled in other forms of communication compared to adults, creative methods, in the form of *write, draw, show and*

tell (27) and the use of *puppets*, were employed to support focus group interviews. These methods and the focus group interviews were conducted by the lead author only.

INSERT TABLE 1

Table 1: Overview of focus group composition

Write, draw, show and tell

First, the *write, draw, show and tell* method (28) was employed, whereby pupils were encouraged to articulate their own meaning embedded within their drawing, creating an individual narrative commentary. In this study, primary school pupils in year 5 (aged 9-10 years) and 6 (aged 10-11 years) were invited to draw a 'typical' classroom lesson before the intervention took place, and to articulate the meaning in their drawing within the focus group interview that followed. Both groups were invited to engage with this activity in their classrooms, to help gather perceptions of traditional classroom lessons from a broader group. This was repeated at the end of the intervention for the intervention (year 5) group only. Throughout the activity, the first author actively engaged pupils in informal conversations for them to begin to articulate what they were drawing and why, and to initially build some rapport with participants. The final drawings (both before and after the intervention) were then brought to each of the focus group interviews and used as the opening activity to help elicit conversations. As such, the focus group interviews asked a range of descriptive and explanatory questions, driven by the drawings (e.g., what have you drawn and why; why does your drawing reflect a typical classroom lesson?).

Puppets

Following discussions of the drawings, puppets were employed as a means of keeping the focus groups fun and engaging, offering another method for eliciting voice (27). Coyne,

Mallon and Chubb (29) found that puppets helped to facilitate small group discussions and assisted in shifting the power balance between children and adult researcher - giving the children more control over what they wanted to talk about. Puppets were therefore introduced into the focus group interviews by the lead author (who had prior experience of using puppets as a method of data collection with children), with pupils in both years 5 and 6, following discussions of their drawings. Prior to being asked any questions, the pupils were told that their puppet had travelled from Mars to Earth to find out about what a typical classroom lesson looked like. The pupils were each invited to choose an alien puppet and were encouraged to give them a name and background about their journey from Mars to Earth. Epstein et al. (28) have argued that the use of alien-looking puppets is particularly important since they appear to be gender neutral, colourful, and soft to touch, which is thought to facilitate self-expression.

The pupils were then given the choice in the focus group interviews to either (a) use the puppet to speak to the lead author, (b) speak directly to their puppet when answering questions or, (c) respond directly to the lead author without the puppet. It is thought that providing children with choices in relation to how to communicate can further minimize the inherent power relationship (30). In the first set of focus group interviews (before the intervention), pupils were asked to discuss the following: "Could you describe to me, each other, or your puppet, what a typical classroom lesson looks like?". In the follow-up focus groups (after the intervention with the intervention group only), children were again asked if they could describe a typical classroom lesson and if anything had changed. They were also asked to describe a PAL lesson if they did not already mention this. In this instance, pupils were positioned as the experts who could teach their alien puppet about PAL, their value, and benefits. Importantly, all pupils engaged with their puppets, either using them speak to the lead researcher or by speaking to their puppet in response to questions.

Data analysis

The use of both the write, draw show and tell method and the puppets helped to facilitate discussions that were digitally recorded in the focus group interviews. It is important to note that we did not analyse the content of the pictures. Instead, the pictures were used to prompt discussions and to 'show' us what young people were thinking/feeling in relation to classroom lessons and PAL, similar to the way in which Sneck et al. (22) used them. All focus group interviews were transcribed verbatim and analysed using inductive and deductive procedures (31). This occurred in two distinct phases: (i) pre-intervention and (ii) post-intervention. In each instance, following multiple, independent readings of the transcribed texts by the lead authors, the data were initially coded. An inductive approach was initially taken whereby the authors sought to code the texts with reference to anything they deemed pertinent to the research before a deductive approach was applied to specifically identify pupils' experiences and perceptions of traditional classroom lessons (pre-intervention) and PAL (post-intervention) (31). After this point, a peer review strategy was employed whereby each author presented their initial codes and identified any emerging patterns. This is a process of intercoder agreement (32) whereby all authors came together to compare and contrast their initial codes before reconciling through discussion any discrepancies. Smith and McGannon (32) note that when a high level of agreement is reached, the coding is deemed reliable. As a result of this process, collectively, data were moved into different first-order and second-order themes with each author describing their justification for the placement of the data (30). No strong disagreements between authors were identified.

Results

Both year 5 and 6 focus groups expressed similar issues when discussing traditional classroom lessons. Broadly, this centred on issues around pedagogy and, as a result, their own engagement in lessons. These sub-themes will be explored in detail below. Following this, data

identifying year 5 (intervention group, *n*=23) perspectives on PAL will be explored whereby pedagogy and the benefits of PAL are unpacked.

Pupils' perceptions of didactic approaches to teaching and learning

As noted briefly above, the first overarching sub-theme identified was around ***pedagogy***. More specifically, both year 5 and 6 pupils spoke of how didactic and teacher-centred most of their 'normal' classroom lessons were:

> *I don't really enjoy it when the teacher just talks for like three quarters of the lesson and then you get about five minutes to do what you're actually doing, which you might enjoy. I don't really enjoy the teacher just kind of blabbing on (Year 6, Boy).*

While the didactic nature of traditional lessons was a key feature of the pupils' responses, it was particularly evident when referencing their drawings – as one Year 5 boy explained:

> *I've drawn a normal lesson. We're just sitting down, and the teacher is chatting away at the front as usual.*

Pupils also expressed their dislike for the type of pedagogical approaches that these 'typical' lessons usually contained. For instance, the didactic nature of lessons, with the teacher at the front dictating what is to be learnt, reinforced rote learning; something pupils were clearly aware of:

> *It's just so boring. You just learn the same things over and over again with the teacher stood at the front (Year 6, Girl).*

It was also evident from the pupils' responses that the didactic approach to teaching in traditional lessons was used by teachers as a means of reinforcing rules and managing behaviour. This was

evident most when pupils were asked to describe their lessons to their alien puppets with many commenting on their reluctance to 'mess around' or talk and simply follow what the teacher says:

> *A normal classroom lesson is where you work independently, no speaking, and do your work properly, no messing about (Year 5, Boy)*

> *A normal lesson… well you sit down, and you listen to the teacher and write and if you don't listen then you get told off (Year 6, Girl).*

The second sub-theme centres around ***pupil engagement*** in traditional classroom lessons and should raise concerns for how pupils feel about learning in primary schools. Here, an overwhelming number of pupils told their puppets that most sedentary lessons are boring:

> *It's boring because you never get to move around. You sit down, look at a piece of paper and then do boring work (Year 5, Girl)*

> *A classroom can often be boring in lessons, you can just sit there for ages and then you do science, maths, English, history and other subjects and it sometimes can get a bit boring (Year 5, Boy).*

As a result of being bored, pupils also spoke about becoming disengaged, daydreaming, clock watching and feeling lazy. This was captured particularly well in figure 1 where a young girl is sat, isolated at her table, daydreaming of anything other than the lesson in question. When asked to describe what she had drawn she noted: "Yeah, I'm just sat doing nothing, bored".

INSERT FIGURE 1

Figure 1: Drawing of 'typical' classroom lesson

This was also reflected in several other responses from pupils in both year 5 and 6:

> *I've got a picture of someone thinking 'three more hours to go till home time'. Sometimes lessons can be boring because most of the time we are sitting down on your chair and just listening to the teacher talk all the time with a sheet of paper to write answers on (Year 5, Girl)*

> *In my drawing, I'm just thinking how long it is 'til school ends (Year 6, Boy)*

> *When you're sat down, you're just like 'uh'. You're just lazy and you don't handwrite as neat because you get lazy. (Year 5, Girl)*

Pupils' perceptions of PAL

Following their exposure to the PAL lesson intervention, the year 5 class (*n*=23) were again invited to draw a 'typical' classroom lesson and discuss their thoughts, feelings, and perceptions in focus group interviews (again with the aid of the puppets). The responses here differed considerably from the initial interviews with sub-themes again identified broadly around pedagogy, along with the pupils' perceived benefits of PAL. For instance, in contrast to the didactic pedagogy reported for 'traditional' classroom lessons, those that experienced PAL lessons almost all frequently spoke about how the ***teachers' role*** (and even position within the classroom) had changed:

> *[In PAL] you will come up and do stuff on the board. Like if there's a maths question to answer. And you know, you can put your hand up and you might have an answer on the board. It gives us more options to more ways of answering questions. Like, we're not just*

12

sat down watching [the teacher] write on the board. We are now all standing up and writing on the board and we can contribute a bit more (Year 5, Boy).

We now have about ten minutes where [the teacher] tells us what to do or sets us a task. Then we just do it. Like she [the teacher] finds it boring just sitting there. If we do it by ourselves or in pairs or in groups, we're moving around, we're talking, learning a bit quicker and getting stuff (Year 5, Girl).

So in my drawing, because we do a lot of writing on the boards now, walking around the classroom like to a different board, talking about other people's stuff and work. So I've got some of my friends walking around the classroom, getting stuff. I'm with [the teacher] who is walking around with us and she's got her hands in the air like "yeah", shouting "Good work". (Year 5, Boy).

The above responses allude to a shift in pedagogy with the teacher acting as a facilitator of learning, ***increasing social interaction***, which the pupils clearly enjoyed. For instance, in contrast to figure 1, figure 2 clearly shows pupils moving about the classroom and interacting with each other.

INSERT FIGURE 2

Figure 2: Drawing of a PAL lesson

As a follow up question, pupils were asked to describe to their puppets why they liked PAL lessons. In response, many pupils discussed the ability to engage with friends within the classroom, and to work with different people:

13

> *I like moving around and standing because it's more active and you get to do different stuff, like work on the boards and work with other people (Year 5, Boy)*

> *It's just like, you're not always in the same place. You're not always with the same people all the time (Year 5, Girl).*

The findings from the follow-up focus group interviews with year 5 pupils also revealed additional ***perceived benefits of PAL***, which adds to the evidence base and rationale for implementing this in schools. For instance, pupils spoke about changes in engagement and enjoyment, how they think PAL lessons activate the brain and enhance their learning, aid attention and concentration, and help with their health and fitness. For instance, with regard to engagement and enjoyment, pupils recognised how "*It adds a bit more fun to the lesson (Year 5, Girl)*". Similarly, children identified how being active helped to "*get your brain working*" (*Year 5, Boy)* and woke them up so they were ready to learn:

> *Being active, it makes your brain bigger. Well not necessarily bigger but more warmed up for what you're about to do (Year 5, Girl)*

> *When you come into school in the morning, you're quite tired. So, your brain isn't ready. So, it takes quite a long time to get into the swing but once you've been active then your brain just keeps going and going and you're ready for the next lesson (Year 5, Girl)*

This notion of being active in lessons and activating the brain was also related to *"helping you concentrate more" (Year 5, Girl).* Pupils also identified how *"if you are active, it makes it more interesting, so you want to pay attention more, so you know what you are doing" (Year 5, Boy).*

Finally, there was recognition by these pupils that PAL lessons help enhance their health and fitness (which for some was also linked to learning):

It's more active and it keeps you fit if you're like doing an activity, but you're still doing the lesson and it's active. You're keeping fit and you're still learning (Year 5 Boy).

Discussion

The purpose of this study was to extend our understanding of primary school pupils' experiences and perceptions of PAL in comparison to traditional classroom lessons. The results of this study mirror similar studies (19,20) that indicate that traditional, didactic, teacher centred lessons were not favoured by primary school aged pupils, when offered an alternative. The pupils in this study indicated that the didactic approach to teaching was often used by teachers as a means of reinforcing rules and managing behaviour. Didactic teaching tends to value learners who sit still and listen. Managing behaviour has been frequently cited in the literature as a barrier to teachers adopting PAL (11,16) with concerns around movement integration leading to disruption and control issues – resulting in teachers maintaining their traditional teaching approaches instead.

There was also recognition from pupils with regard to how sedentary 'traditional' classroom lessons are. Like previous work (19,20), many pupils in this study frequently reported being seated and not moving around. In fact, the inability to talk to peers in itself, negates the need to move around and interact. From a pedagogical perspective and what might be considered 'good teaching' (34), these findings alone are worrying, but more so when combined with how pupils feel within these lessons – i.e., bored, disinterested and disengaged. Martin and Murtagh (20) reported similar results noting that pupils wrote about 'sitting down' and being in 'boring' lessons as part of their write and draw activity, with few baseline drawings in their study

illustrating being engaged or interacting with peers. In this study, an overwhelming number of pupils told their puppets that most sedentary lessons are boring.

In contrast to 'traditional' classroom lessons, the results of this study suggest that PAL may offer an alternative pedagogical approach to teaching and learning where the teachers role as a facilitator fosters increased social interaction which enhances pupil engagement in, and enjoyment of, lessons. Martin and Murtagh (20), using similar methods to this study (i.e., draw and write), also found that introducing movement integration lessons across an 8-week intervention, resulted in pupils reporting being more engaged in lessons, having fun, enjoying themselves, and interacting with friends, compared to baseline images which highlighted traditional lessons as 'boring'. In addition, Martin and Murtagh (20) collected teachers views which also highlighted enhanced learning and pupil enjoyment as benefits of PAL. Using quantitative methods, Vazou et al. (15) found enjoyment significantly decreased after traditional lessons and significantly increased after PA integrated lessons, suggesting including PA in academic subjects can positively impact pupils' enjoyment and motivation in academic sessions. Similarly, Sneck et al. (22) reported that introducing more PA into the classroom can help improve pupils' engagement as well as providing physical and mental health benefits. Importantly, previous studies have noted that health benefits may be an important contributor towards children's participation in, and satisfaction with, classroom-based PA more broadly (19).

Ultimately, these results reflect the literature that has evaluated pupil and/or teacher perceptions of classroom-based PA more broadly (e.g., 19,20,21,22,33) and suggest that integrating movement into existing curricular content can enhance teaching and learning.

While this paper offers unique insights from a key stakeholder group – primary aged children – into the reasons why PAL should be adopted in primary school contexts, there remains a need to continue to listen to pupil voice from a broader sample (beyond the one school and two

classes in this study). The depth of the data from children remains a strength of the study, despite the small sample size and several pupils not attending the follow up focus group interviews. That said, the small sample does warrant consideration for the transferability of the findings. A further limitation is that the broader intervention was only conducted over a 6-week period and therefore pupils could have simply reported positive experiences as a result of novelty and experiencing PAL for the first time. Prolonged exposure to PAL may have allowed for the capture of children's perceptions changing over time.

Despite this, the study does have a number of strengths. First, the use of creative methods supported the focus group interviews and allowed pupils to express their views. Second, the choice afforded when using the puppets also supported pupils to express their unique perceptions in a way in which they felt comfortable.

Conclusions

Listening to pupil voice is somewhat rare in PAL related research, with few studies actively seeking to engage with children and young people to elicit their experiences and perspectives. However, this paper sought to extend our understanding of primary school pupils' experiences and perceptions of PAL in comparison to traditional classroom lessons and in so doing, adds to the evidence base in this area. It was evident that children viewed traditional lessons as teacher-centred, boring, sedentary, and disengaging. In contrast, in PAL, pupils recognized that the teacher adopted a different role (a facilitator of learning), which led to more social interaction and enjoyment within the lesson. Importantly, PAL lessons offer an alternative pedagogical approach to didactic teaching, which undoubtedly remains the pedagogical mainstay of traditional classrooms, despite pupils' preferences for more fun, engaging, and active lessons. It was also evident that pupils were acutely aware of the benefits of PAL lessons, and it would therefore be helpful to highlight the additional benefits (increased social interaction, enjoyment, health benefits) that pupils themselves recognize, when promoting PAL to key

stakeholders/decision makers, and even to teachers themselves, to help overcome any reluctance they have to adopting it. Moreover, the key findings map to the English Teachers' Standards – particularly Standard 4 "Plan and teach well-structured lessons" which includes "promot[ing] a love of learning and children's intellectual curiosity" and "reflect[ing] systematically on the effectiveness of lessons and approaches to teaching" (31) – and could be used to further reinforce the value of PAL to key stakeholder groups.

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Data availability:

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Conflicts of interest and Source of Funding

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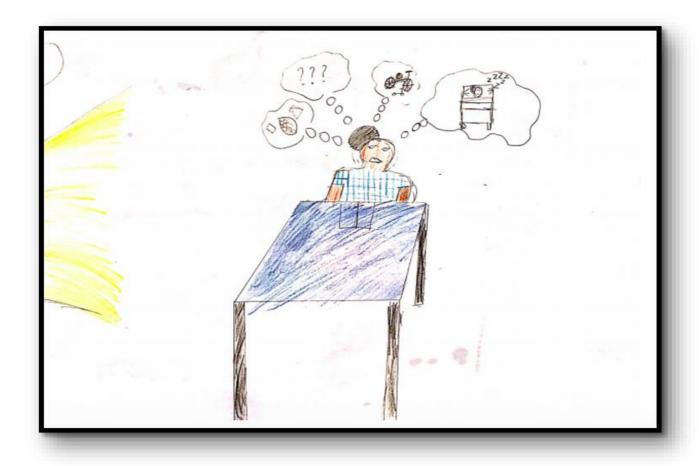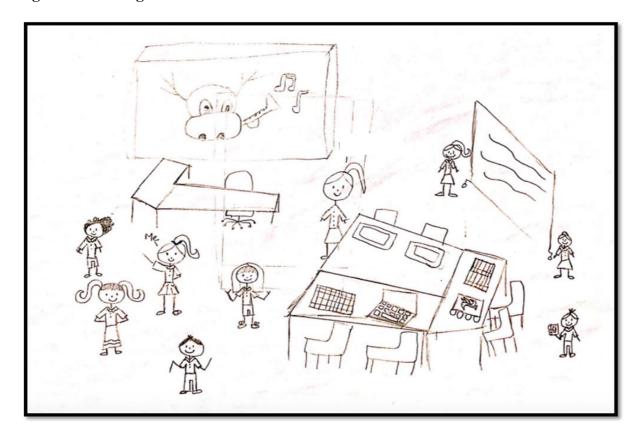**Figure 1: Drawing of typical classroom lesson**

Figure 2: Drawing of a PAL lesson

Table 1: Overview of focus group composition

	Pre-Intervention		Post-Intervention	
	Year 5 **Intervention Group**	**Year 6** **Control Group**	**Year 5** **Intervention Group**	**Year 6** **Control Group**
Focus Group 1	6 boys	4 boys	4 boys	4 boys
Focus Group 2	5 boys	5 boys	4 boys	5 boys
Focus Group 3	5 boys	6 girls	4 boys	5 girls
Focus Group 4	6 girls	5 girls	6 girls	5 girls
Focus Group 5	5 girls		5 girls	
Total pupils	27	20	23	19