

Sanquhar Primary School
Scotland

Learning Styles Pilot Study

“The practical implementation of a learning styles approach
within the classroom and its impact”

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Pilot study - Sanquhar Primary School

Sanquhar Primary School is situated in the rural town of Sanquhar in the South West of Scotland. Based in Dumfries and Galloway it has an approximate roll of 230 pupils.

Following a review of a selection of the research evidence in learning styles, it was decided that we would investigate the effectiveness of the practical implementation of a learning styles approach in the classroom. I was able to help support the class teacher in making the changes within the class and could observe the impact.

Our pilot study was based in the Primary 4 class consisting of 30 pupils aged between 7 and 8 years. We felt it necessary to consult with children as the changes proposed were in stark contrast to their traditionally organised classroom. We also wanted children to understand the concept that we all learn differently and emphasise how important it is for them to find their own preferred working environment rather than sit with their friends.

After discussions with children we were pleased with their responses. Initially, we asked them where they liked to complete homework tasks. Interestingly we received a variety of responses from lying on their bed to sitting at a desk in a quiet bedroom. These suggestions highlight to us that out-with the school setting children if given the opportunity were able to choose a setting which allowed them to learn and concentrate better.

Class Organisation

In the Primary 4 class, we used the main ideas from the Learning Styles Analysis and organised the class layout to suit, where possible, a variety of learning styles. The classroom was organised to allow children the flexibility to choose where to sit to complete work tasks. These included:

Workstations - Using cardboard partitions we were able to create single workstations for those children wishing to work on their own.

Listening table - A group table was set up to allow the children to have their own headsets to listen to Classical/Baroque music while they learn.

Group tables - This allows children to work alongside peers in a group situation. (Prior to the class reorganisation all desks were grouped in this manner).

Bright/low light areas - For children who prefer brightly lit areas tables have been set up along the windows. The use of lighting and blinds in some areas of the classroom had also been adjusted to create bright and low light areas.

Floor space- Through the reorganisation of the tables a large area of floor space has been left to create an alternative work area. Children have the option to sit or lie on the floor using clipboards to complete work tasks.

The children were also encouraged to bring in cushions and pillows for chairs or for use on the floor. This links to the idea of uncomfortable settings causing fatigue and lack of concentration.

In the first two days of the study the children were given the opportunity to experience all of the areas. They were then given a tick sheet to encourage them to consider which areas they felt they could concentrate or learn best in. Afterwards, lessons were delivered at the front of the class and the children were then able to choose where to sit, according to their preferred working environment.

Brain gym was also an important tool introduced to encourage mobility, help rebalance brain functions and help children to relax in preparation for learning.

It was used first thing in the morning and after lunch every day. Brain Gym also encourages the consumption of water which links to idea of intake and learning. Pupils had their own water bottles which they could fill with fresh water throughout the day.

Feedback from Teacher

Class: Primary 4

Early results were very positive. We found that children very quickly organised themselves into their preferred area. Once, organised, the children were focused on their tasks. Through working with the class on previous occasions it was fascinating to discover that the children seemed more focused and that the class had a very busy, learning environment. The atmosphere was one of calm. The children seemed more independent and were surprisingly less distracted than in the previous class layout.

Through discussions with the class teacher it became clear that the pilot study had been a very positive experience. The class and class teacher had benefited from the change in layout. Indeed the class was a lot quieter and less distracted during work tasks. The children were able to concentrate for longer periods of time and disruptions were minimal. The overall behaviour of the children had improved which allowed the teacher more time to work with individuals and groups. Children now had the opportunity to move away from distractions and problems as it was made clear that they were ultimately responsible for their learning. The children enjoyed this privilege and were heard remarking that they had a "magic classroom".

The departure from teacher-centred learning to a more informal environment where the children were more independent allowed the class teacher more time to interact better and be more involved with individual children. Indeed, the Primary 4 teacher was able to move around the class more freely and was able to sit and discuss issues with children within the various work areas.

A number of examples were cited to reinforce the class teacher's comments. One particular pupil who found it difficult to concentrate in a group situation during a writing lesson moved to an individual workstation the following week. The content of his stories dramatically improved from three lines of writing which was barely legible to a page of writing which was much neater and contained finger spacing.

For two other pupils finishing work tasks was sometimes difficult and they often had work to complete during Golden time. Golden time is a set time of 45 minutes at the end of the working week. Children are allowed to choose from a variety of activities. This time is given as a reward for working and behaving positively. Since the project started both pupils were able to complete tasks on time and enjoyed their full Golden time.

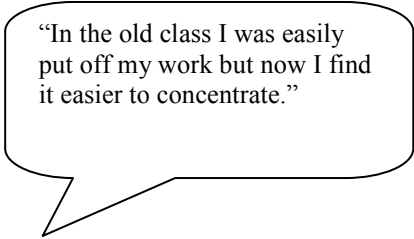
A group of children completing national tests chose to sit on the floor using clipboards. This particular group usually work on the floor during class lessons. Although some of the other children used the floor at first because it was more of a novelty, they soon found it uncomfortable for them and moved to other work areas within the classroom. Interestingly this group stayed and enjoy lying or sitting on the floor using clipboards. They were completely focused and were able to concentrate on their work.

The only problems that occurred were in terms of the organisation of resources. The fact that children were moving to different work areas throughout the day meant that the class teacher had to set up central areas whereby children could collect pencils/rubbers and water bottles etc. Their school bags also had to be stored in an organised manner.

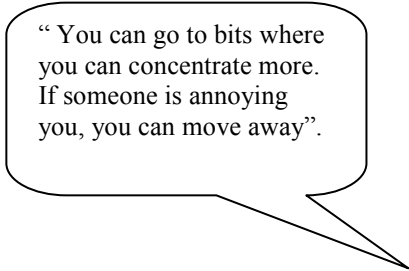
Feedback from pupils

Primary Four

The children were on the whole very enthusiastic about their new classroom. They very quickly adapted to the change in layout and sensibly chose areas in the classroom that they preferred to work in. However, it was important to allow them to voice their ideas and opinions.



“In the old class I was easily put off my work but now I find it easier to concentrate.”



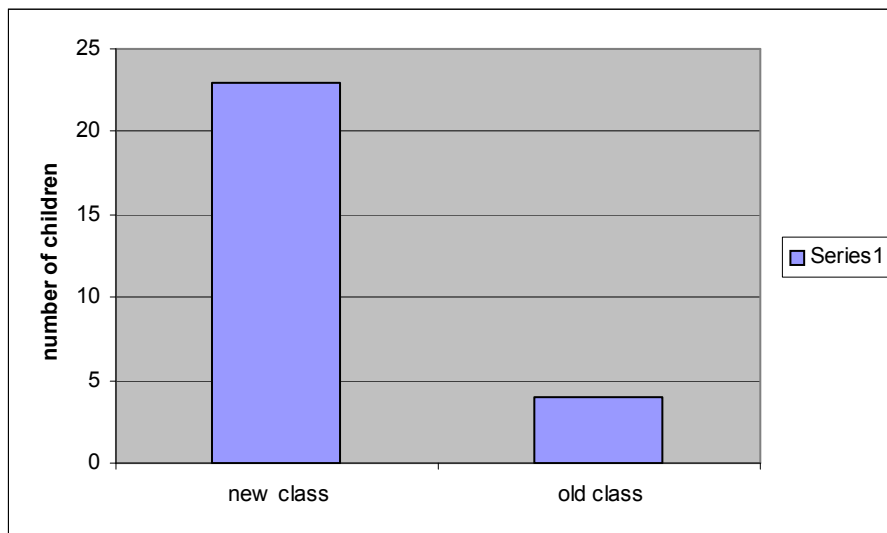
“ You can go to bits where you can concentrate more. If someone is annoying you, you can move away”.

“I like the workstation as it helps me to work better and concentrate. Hook ups are also good in Brain gym because they help me relax”.

“I like it because I can do my work better. In the old classroom, I always had work to finish but now I get my full Golden Time.”

We designed a learning styles questionnaire and we were able to collect more data about the preferences of the children.

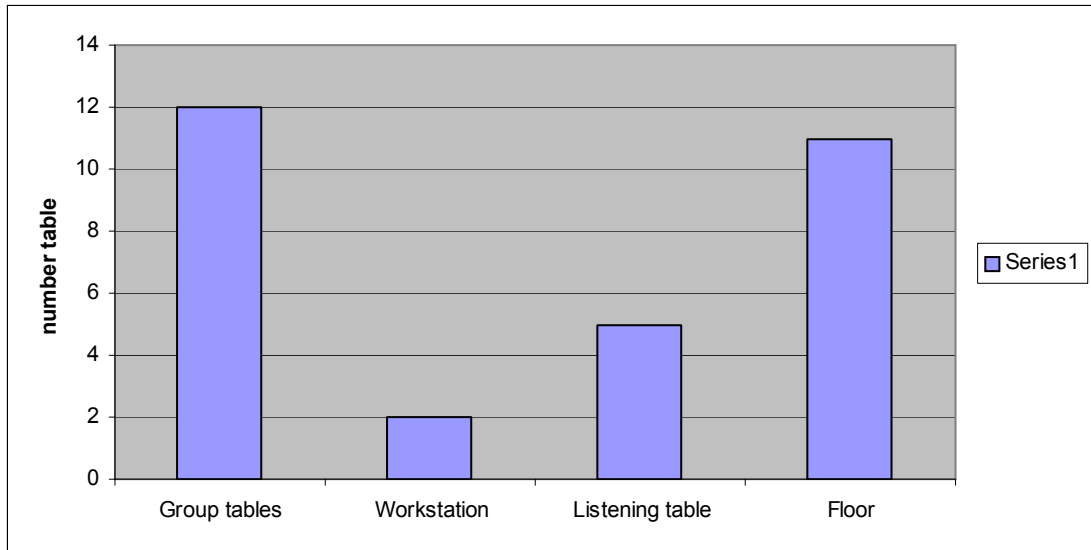
Which classroom do you prefer?



From the data it was found that 23 pupils preferred the new class while only 4 pupils had opted for the old class layout. On closer inspection it was interesting to see that all the children who preferred the old class layout mostly sat at the group tables (original layout). Therefore it could be concluded that the children were opting for the classroom that suited their learning style.

Which area do you work in most?

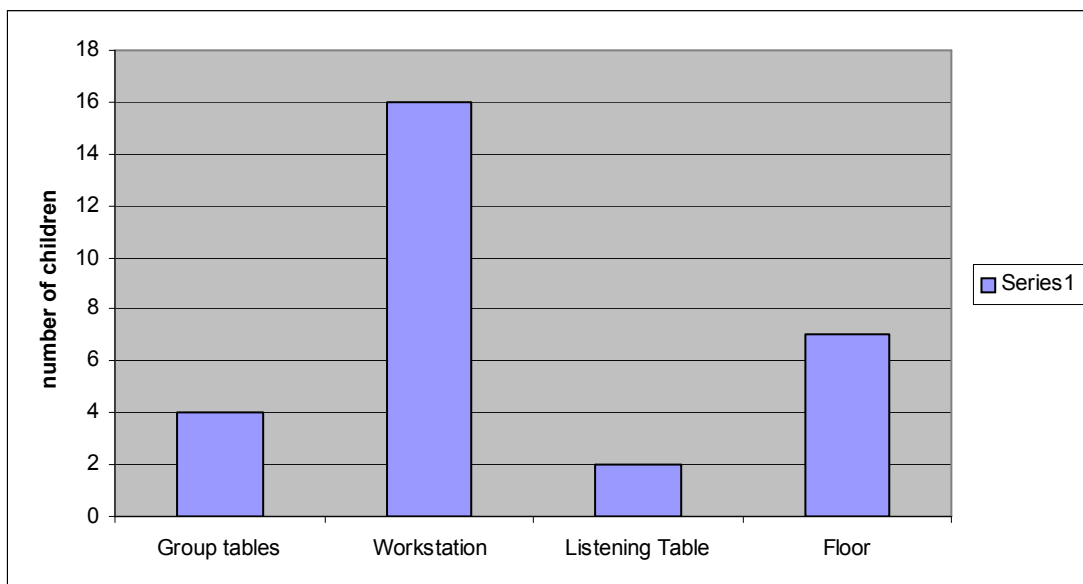
The following results were collected regarding the pupils' preferred working environments.



Do you always work in the same area? If not which areas do you sit in?

From the questionnaire, we found that only 7 pupils sat in the same area while 23 pupils chose to sit in different areas. What was interesting was that within these different choices there appeared to be pairings of similar working environments. Indeed pupils who chose the music table always had the group tables as another of their choices but did not tick the workstation or floor area. It could be concluded that these pupils work best in a noisier environment and would find it difficult to concentrate with silence. Similarly, the children who indicated a preference for the floor area or workstation did not choose the music or group tables. The children who chose to stay in the same area for all their work tasks chose one of two areas the floor area or workstation. These children appeared to be the pupils who prefer to work on their own and in a quieter environment.

When you need to concentrate very hard where do you sit? e.g. Test, check up



We found from our results that there did not appear to be much movement from the listening table and floor area. However, the children who indicated that they mostly sat at the group table for tasks chose to move to the workstation for pieces of work that required their maximum concentration. Therefore for their daily programme they seemed to prefer working as a group. However, they were able to make a conscious decision to work alone on more difficult tasks. Again the children's own preferred learning environment appeared to be a stronger pull than their social groupings.

Write down 3 things you like about the new class?

The children responded with a range of ideas. However, there were some interesting themes which emerged. Most of the children reported that they enjoyed the flexibility of being able to move around the class. They also felt they could concentrate better in the new layout and felt the classroom was quieter. The following were a few of their responses:

- "You get to pick where you sit"
- "I like Brain Gym"
- " It's quieter and you can concentrate better"
- " It's nice. You can concentrate and it's got more space"
- " I can get my work finished"
- " You can listen better"
- " I can move to a different seat"
- " You get more privacy"
- " We can bring in cushions"

Write down 3 things you don't like about the new class?

Only a few children responded to this question. Most of the pupils left the question blank or wrote that there wasn't anything they didn't like about the new layout. However, some children responded with the following ideas:

- " Sometimes you can hear the music when you are sitting somewhere else"
- " People sometimes talk to me when I am at the workstation"
- " I don't like early finishers because in the new class I finish my work quicker"
- " Sometimes the bags get muddled up"
- " You don't have your own little seat but that's about it"

These comments were very useful for the class teacher as small changes could be made in terms of class organisation to tackle the issues which arose. Nevertheless, a lot of these issues could have occurred in any classroom. What can be concluded from these results is that the children remained on the whole positive about the new changes to their class. In this case the impact of learning styles had been a positive experience and one that the children adapted to with relative ease.

What do you think about Brain Gym? Why?

Brain gym was a popular addition to the class and allowed the children mobility within the school day. From our data only 3 pupils did not like taking part in Brain Gym exercises. On the whole the class were enthusiastic and reported the following positive aspects:

- "It helps you think"
- "It wakes me up when I am sleepy"
- "It makes me work harder"
- "It makes me feel relaxed when I am sad"
- "It makes you really concentrate and gets you thinking"
- "It's fun, I love the music, hook-ups and lazy eights"
- "I love hook-ups because you get to lie and listen to your breathing"

Do you bring water to school? Why?

The majority of the children brought water to school and refilled their bottles throughout the day. When questioned about why they brought water to school, the following answers were produced:

- " I get thirsty during the day"
- " It gives me more energy"
- " If I don't bring water, I get a sore head"
- " It gets my brain working"
- " It keeps your body healthy"
- " It wakes me up and I reckon I learn better with water"

What do you think should be added to the classroom to help you learn better?

There was a range of ideas suggested by the children. These were a few which had practical implications for the class.

- ❖ A couch - "I work well there"
- ❖ Teddy bears
- ❖ Bean Bags
- ❖ Low tables to sit and work at
- ❖ Pop music
- ❖ Soft chairs
- ❖ Balls - to fiddle with while listening.
- ❖ Fluffy cushions

Conclusions

Although much of the evidence was largely anecdotal. The class teacher saw positive changes within her class. As professional teachers know the children in their class well and frequently make judgements about children's learning and development in order to

identify their needs and next steps. Indeed, the emphasis has moved in schools from the traditional idea of summative assessment to formative assessment, whereby evidence about individual children's progress is collected and evaluated using a number of different methods.

Therefore, as in other areas we must trust their judgements about the positive effects that have occurred in their classes using the learning styles approach.

We should also give more opportunities to children to identify their own learning needs. How often as educators do we question children about their learning needs? Indeed, in the present study we found that the children were able to verbalise in a mature way the conditions in which they could learn and concentrate well in.

Nevertheless, critics of the learning styles approach say there is a lack of evidence to support the positive claims made. Therefore, it is important to generate more interest in the learning styles approach in order to encourage other schools to implement and test the principles of the theory. Indeed, such research activities are being encouraged in education as part of teacher's continuing professional development (CPD). The aim of such projects is to encourage teachers to participate in research that is of direct relevance to their professional practice.

Although, it would not be possible to control all the variables. It would be interesting to use cognitive and self-esteem assessments at the beginning of a school session and retest pupils at the end. Only then can measurable effects of the learning styles approach be made. Moreover, comparisons could also be made not only from class to class but from school to school to test the effectiveness of this theory.

Indeed, presently we are in the early stages of carrying out further research using a primary 3 /4 and a control Primary 4 class using self-esteem assessments, observations and collecting evidence of children's work. This evidence will be examined with a view to drawing conclusions between those pupils within the control class and pupils who have spent several terms working in a learning styles classroom. Our main focus will be on numeracy and literacy performance levels.

Our intention is to find further evidence within our own school of the effectiveness of the learning styles approach and to share our findings with other schools and investigate how this theory, if proved successful, can be developed and implemented in other classrooms.

