

**St John's C of E Primary School,
Reading
Berkshire**

The INPP Exercise Club - Observations

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The Exercise Club was first established by St John's to provide opportunities for children experiencing difficulties with co-ordination to practise skills such as balancing, throwing and catching along with general movement. The club ran after registration on a daily basis.

Following an INSET within the school focussing on retained reflexes and the link between movement and learning; St John's decided to re focus the Exercise Club so that specific exercises designed by INPP would address the early developmental stages of brain-body growth, based upon the research of Sally Goddard Blythe and Peter Blythe from the Institute of Neuro-Physiological Psychology (INPP).

Extract from INPP School Movement Programme booklet:

The programme involved carrying out a series of developmental movements each day, based on movements normally made by the developing child in the first year of life.

All exercises were carried out on the floor and helped to develop proper head alignment with the body (the basis for good posture), ability to use left and right sides and upper and lower sections of the body in different ways (the basis for coordination). Only when the child was able to carry out these very simple movements with automaticity did the child move on to repeat the movements in a more challenging position.

One member of staff received specific training in the implementation of the INPP Schools Programme under the guidance of an INPP licentiate with the Schools Programme being implemented in September 2006 and ran until early December 2007.

Areas of development where we hoped to see increasing levels of confidence and skills.

Improvements to literacy skills

Increased ability to concentrate: settle to task quicker and or stay on task longer

Where and how did we start the study

The SENCO identified 6 children from Years 3 and 4, where concerns had been raised by teachers that the children experienced difficulties with reading skills, writing including spelling and hand writing. In addition some of the group found concentration on whatever

activity to be a very demanding skill and as learners in the classroom this was an issue. They were however not considered to be children with specific learning difficulties

Parental meeting

Parents were invited to attend a meeting where the background to the exercise programme was explained and how retained reflexes can affect the way in which children are able to access and respond to learning in the classroom and the wider experiences of life. Parents were informed that the Exercise Club would meet every morning for 15 minutes and that the programme would take between 3 and 4 terms depending as we wanted to recognise the demands of a very busy school schedule. During this meeting the parents were introduced to the member of staff responsible for guiding their children through the movements.

One member of staff received specific training in the implementation of the INPP Schools Programme under the guidance of an INPP licentiate.

Screening, Assessment and Measure of Educational Progress

Parents of the children were asked to complete a questionnaire before and after the programme which enabled baseline information to be collected on such aspects of their child's development as attention, balance and co-ordination. Often teachers and parents completed these together. Parents were invited to an informal meeting at the end of the first term in order to ask any questions and to offer feedback with observations of any noticeable changes at home.

Baseline assessments were carried out before and after the programme using the developmental test battery designed by INPP which enabled each child's profile to be collected through a series of neurological tests; this included checks for static and dynamic balance and co-ordination and evidence of early movement patterns known as reflexes. The assessment also included tests for visual tracking ability and sound discrimination. Scoring for each test ranged between 0 – 4:

Scoring 0 = no abnormality detected

1 = 25% dysfunction

2 = 50% dysfunction

3 = 75% dysfunction

4 = 100% dysfunction

Reading ages using the Salford Reading Test were identified at the start, after 3 terms and finally at the end of the 4th term programme. Salford demands a range of strategies to be employed by the child from initial sounds and blends to segmenting and use of syllables. Sequencing, memory and organisational skills all being required to decode the unfamiliar words.

The INPP exercise club met every morning for approximately 15 minutes directly after registration; groups of movements were demonstrated and then undertaken by the group over a period of 4 terms.

Results

Salford Reading Age scores September 2006 – November 2007

	R.A Sept 2006 before start of INPP programme	Difference between Chronological and R.A Sept 2006	R.A Sept 2007 3 terms INPP	Difference between Chronological and R.A Sept 2007	R.A Nov 2007 completion 4 terms INPP	Difference between Chronological and R.A Nov 2007
Pupil A	7.01	-18 months	9.07	+30 months	9.06	29 months
Pupil B	7.09	-5 months	8.09	+12 months	9.07	+22 months
Pupil C	6.11	-9 months	8.01	+14 months	8.04	+17 months
Pupil D	8.00	-3 months	10.02+	+26 months	10.06	+30 months
Pupil E	5.02	-26 months	7.10	+32 months	8.01	+35 months
Pupil F	7.11	-1 month	9.08	+21 months	10.02	+27 months

Neurological Developmental Delay scores

	% Neurological Developmental Delay score September 2006	% Neurological Developmental Delay score November 2007	% improvement
Pupil A	21	5	16*
Pupil B	46	32	14
Pupil C	50	17	33
Pupil D	50	30	20
Pupil E	40	15	25*
Pupil F	44	18	26

Anecdotal observation from teachers and parents after the completion of the INPP programme

	Teacher observations	Parental Observations
Pupil A	More self assurance Higher self esteem Able to learn spellings, achieving high scores in test.	Stage school noticed a change at the end of the first term on INPP exercises. A more positive attitude emerged and “so much progression” has been observed. Before the programme my child complained of headaches quite lot, over the last year this has definitely almost completely disappeared.
Pupil B	Improved confidence, handwriting is much clearer and joined, is now able to use a pen.	Organisational changes noticed, memory recall and posture. Merit received from Dance club for the first time having attended class since the age of 2 years. Other people began to notice growth in confidence. It’s the first time my child’s reading age has overtaken her chronological age!
Pupil C	Concentration and work has improved, more of a sense of being able to settle to the task and “get on” with things - less fuss generally. Calmer. Neater and quantity of work increased – during art week able to make mask with noticeable improvement with application of glue on the model	
Pupil D	More contentment within the child . Work is neater and more legible. Doesn’t become so upset anymore and will ask if unsure	More confident and assertive with older sibling. Able to tidy bedroom with greater ease and skill, less chaotic. Now enjoys hobbies such as recorder - waiting to learn the saxophone. Asked if could play a lead role in play.

Pupil E	More ordered and settled, able to let ideas flow with more confidence such as in letter writing. More confidence and concentration, now able to make a mistake without becoming so upset. Less likely to write numbers incorrectly such as 101 instead of 110.	Willingness to try homework has changed, now able to find a notepad and pencil and for example wrote 2 pages. Noticed that when out and about together, longer words are noticed in the environment and read correctly. My child believes that the exercises have made him more confident, he has enjoyed participating and is sad that the programme has come to an end.
Pupil F	Calmer, able to read much more, handwriting becoming clearer. Writing becoming clearer in meaning as well as improvements in spelling noticed. Concentration has much improved	My child is now able to ride a bicycle and can swim better.

Observations following the 4 term programme

Over the 14 months between the September 2006 and November 2007 Salford Reading tests; 67% of the group made progress of more than 24 months and 33% of children made a gain in reading averaging 19.5 months.

When considering the Salford Reading Test as a measure of reading progress the whole group made an average gain of 26 months in 4 terms.

The pupil with the highest neurological score in September 06 made most gain in reading age and in neurological development during same period of 4 terms.

In Tracking, Integration and Sound Discrimination activities, the children experiencing the most difficulties made the greatest improvement.

There is a strong correlation between reduction in neurological score and an improvement in educational attainment.

Data was gathered by the INPP licentiate and school staff

Anecdotal observation from the INPP group following the 4 terms on programme

Pupil A

The teacher was always saying to me that I have brilliant ideas but I need to get them down on paper. Now I am getting them down on paper.

I can focus on the ball when it comes towards me in cricket and tennis and I can hit it in a straight line. Some of my friends have noticed.

I can concentrate more on my work as I seem to be able to block everything out now.

I just feel better.

I understand the instructions and what's going on more than I used to.

I remember my lines for acting.

Pupil B

I have improved on my skipping and my jumping because now when I skip I can get up to 39 but before it was only up to 10. I can jump more times in PE without falling over.

My reading has improved and I have moved up to pink level, I enjoy reading much more.

Mum also said my reading is excellent. I couldn't read more than 3 pages a day and now I can read a whole chapter. I can remember things better and sit down without fiddling, I used to fiddle with my pencil while the teacher was speaking. I know what I am meant to be doing now because I can concentrate better

Pupil C

It helped me to improve my writing because I now write on the lines when I used to rush it got bigger and bigger; now my letters are all the same size. When I used to run - I used to walk but now I do run and I am faster . I can dance better because I used to only wave my hands around but now I wriggle around and my body moves. I can make things better – if I want to make something now like in sewing I can do it better.

My behaviour has improved as the teacher has told my Mum that I am better behaved. I can settle down quicker as the teacher says he doesn't really notice me first thing in the morning as I am settling down quicker. Now I can hold my pen properly but before I grabbed it and couldn't control my writing so well.

Pupil D

My handwriting and my reading has improved because I can read longer without getting tired. My ball skills have improved because I can catch the ball now. I can concentrate better and do more listening and I understand things better like instructions from the teacher. I think I am just listening better than before I did the programme. My eyes are better because before when someone threw a ball I didn't exactly know where it was and I'd duck. But now I know where the ball is and so I know where to put my hands.

Pupil E

I am better at playing football, now I play with both feet. I am running faster and balancing better and able to flip to another balance in PE without falling over.

Pupil F

I am getting more stars than before for good behaviour.

Anecdotal comparative information of Salford Reading Scores

St John's "Exercise Club" Salford Reading Scores and scores from 6 pupils also from Year 3 and 4 who did not take part in the INPP study.

For the purposes of this study, following the completion of the INPP programme, the school compared gains in reading ages of a similar group of children from Year 3 and 4 using the Salford Reading Test results from September 2006 and September 2007. As in the INPP group all the children had received the same Spelling intervention programme and individualised handwriting support but **not** the exercise programme.

St John's Salford Reading Scores for 6 non INPP intervention children prepared for the purpose of discussion in September 2007

	R.A Sept 2006	Difference between Chronological and R.A Sept 2006	R.A Sept 2007	Difference between Chronological and R.A Sept 2007
Pupil 1	8.00	-5 months	8.05	+5 months
Pupil 2	8.00	-4 months	8.05	+5 months
Pupil 3	7.01	-7 months	8.01	+12 months
Pupil 4	7.09	-3 months	8.05	+8 months
Pupil 5	4.09	-35 months	5.03	+ months
Pupil 6	8.00	+3 month	9.03	+15 months

When comparing both groups of children over the 3 term period from September to September using the Salford Data available; the INPP group made an average reading gain of 22.5 months and the other group 8.5 months.

Reflections

The INPP Exercise Club are to be congratulated for their participation and commitment; this has been instrumental in making the programme so successful. Grateful thanks also go to parents and staff for their enthusiastic support throughout.

References:

Goddard Blythe SA, 1996. The INPP Test Battery and Developmental Exercise Programme for use in Schools with Children with Special Needs. Restricted Publication available with training course from INPP Ltd, 1, Stanley Street, Chester. CH1 2LR. www.inpp.org.uk; mail@inpp.org.uk

Goddard Blythe SA, 2005. Releasing educational potential through movement. A summary of individual studies carried out using the INPP Test Battery and Developmental Exercise Programme for use in Schools with Children with Special Needs. *Child Care in Practice*.11/4:415-432.

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