

Case Study 5: A Problem-Solving Approach

Pollock Children's Centre, Glasgow

This case study describes how creativity is encouraged by commitment to a problem solving approach in all aspects of the centre's work.

We are maybe too quick to say what children can't do rather than make available the time and resource to let them discover just what they are capable of.

Irene Macintyre, Head of Centre

The Pollock Children's Centre is a purpose-built establishment opened in 1985 to meet the needs of families with young children in the Pollock area of Glasgow. In that period of time there have been changes in the community including a better level of employment, the need to cater for working parents, a higher level of single parent families and the introduction of expanded pre-5 education entitlement under government initiatives. The centre has adapted to meet these changes but has always held to the central principle of encouraging creativity in all aspects of its work particularly by promoting a problem-solving approach. The centre benefits from a good level of continuity in its staffing and the present head has been in charge since the centre opened – there has been a good passage of time in which to evaluate the work to date.

There are 110 children in attendance with a maximum of 75 at any one time. Places are available for babies to five-year-olds. The staff team comprises three promoted staff, a teacher and 13 nursery nurses who operate a keyworker system with a member of staff having responsibility for a group of children based in one of five home base areas.

The design of our building with the small base rooms, open area and outside facilities greatly helps us in our work. There is room for children to engage in larger scale activity but also spaces which are secure and friendly to allow for more individual or small group working.

Head of Centre

The keyworker has responsibility for the planning and delivery of the pre-five experience for the children in her care although much of the work draws on the shared input of colleagues under the direction of the head of establishment.

We are a very good team. There is no competition. We work in support of each other and I like to think the children are aware of that and base their behaviour on what they see and experience. It has taken a long time for us to achieve this but in education there are never quick fixes.

Head of Centre

The development of the centre has been influenced by the work of Reggio Emilia nurseries in Italy with the customisation of their ideas to fit the context

of Scotland and the needs of the Pollock community. Underpinning the development approaches is a number of guiding principles.

- Clear prior identification of the capabilities and needs of the children.
- The importance of allowing children to develop their individual ideas.
- Appreciating that adult hands are for facilitating the child's ambition.
- Involvement where possible of learning and teaching partners such as carers or parents.

In all aspects of their work but particularly in the expressive and aesthetic area staff set out to provide experiences which promote:

- exploration of a wide variety of media
- independent action on the part of the child
- real problem solving
- listening with effective recall and reporting.

The arrangement that sees one member of staff taking responsibility for most aspects of the work with a small group of children ensures that a firm knowledge of the child, his/her background and capabilities is established at an early stage. Regular planning sessions are held with the head of centre and/or the teacher to ensure that programmes take real account of individual needs and development. In this way staff hope to help each child reach their potential. In this process parents and carers are involved as learning partners through discussion of progress on a regular formal and informal basis. In this way staff try to increase the sense of parental/carer involvement with a genuine hope of fostering positive and proud attitudes towards the children.

My boy loves it. He can't wait to get here in the mornings and talks about it all the time. There should be more guys in pre-five, even visiting to see the things that children can do and to learn how to take them further.

Father

The establishment prides itself on the problem-solving strategy that it adopts for many learning and teaching tasks. In broad terms this involves the identification of particular problems relating to the development of individual children or the provision of an experience or activity for a group.

I feel we help the children to think for themselves and gain the confidence to do this naturally. They do put ideas forward and develop them. When our children are in a group we like to think that the children's agenda rather than the keyworker's agenda is driving things along. If it is their agenda things are real and matter to them. I am constantly surprised by just how far children can go and the different way in which they can look at something. They have no baggage and their solutions are often highly creative and innovative.

Head of Centre

Staff have planning sheets that are completed on a daily or weekly basis which are laid out with the following headings.

PROBLEM	– which identifies the task or issue to be addressed for each child or the group.
LEARNING OUTCOME	– which identifies the skill or concept area it is hoped to achieve.
CHILD'S COMMENTS	– recording the child's comments and perspectives on the task.
EVALUATION	– staff comment on achievement and success of the task.
NOTE OF DATE	– recording of date for pupil profiles and staff planning purposes.

For us it is the process the children go through that is really important. 'Correct' answers are less vital. It is about them looking at things and giving their thoughts. For example in a free-choice making session at the junk table I am often astonished at the ambition the children have in their model making and how often they make a success of their plans – even when I think they might fail. I remember when Billy made a tree out of a carpet tube, collected branches and leaves and involved others in helping him. We ended up with a two-metre high tree complete with leaves which stood up – it was magnificent.

Keyworker

Within this framework a range of tasks of different scale and importance is addressed. At a lower level there are questions such as 'How do we melt chocolate' or 'How do we make a sponge cake?' These provide an excellent basis for experimentation, discussion and problem-solving development work in a range of areas such as hand–eye coordination, observation, judging quantities, pouring, mixing, safety issues (e.g. the danger of heat) and early numeracy and literacy.

Children have the choice of tools and materials. This means that we provide all that they need for their explorations from food mixers to supervised work involving heat. Whilst you never take chances with their safety you have to push the boat out a bit so that they have real ownership of what they are doing.

Keyworker

Problem-solving activities are prepared for every area of the curriculum and daily activities include tasks requiring staff to facilitate children's exploration of individual experiences within a variety of contexts.

We encourage the children to visit other bases to see what other groups are doing and even to get involved if it is appropriate. We try to exploit their curiosity and natural inventiveness.

Keyworker

Pirates and pirate ships

The same approach has been applied to social/behavioural aspects such as

the problem one group had with excessive use of force and violent behaviour on the part of some children. The keyworker's solution was to develop a theme on pirates and their ships. This led to a series of problem situations for the children involving the making of a pirate ship from boxes and junk material, sails from curtains, Jolly Rogers and other pirate artefacts. There were story sessions, visit to a tall ship, a treasure map and treasure hunt, developed artwork and even a pirate party including children from other rooms. Another feature was the construction of a storybook that involved the children as characters and which was illustrated by them. Supporting this approach was the determination to explore the rules of safe play and the need to have acceptable rules for behaviour that involved valuing each other and the recognition of violent behaviour as anti-social.

It was interesting that I thought of the way to tackle this issue almost by accident. One wee boy had a sore eye and had to wear an eye patch. When she brought him in she said he was like a wee pirate and of course others wanted to be pirates too. It was great to have the flexibility to be able to exploit this situation to tackle an important issue yet still be able to build the ongoing curriculum into the new context. You have to be able to capitalise on the children's interests and not always be bringing in artificial contexts.

Keyworker

'The Wild Tigers of Bandhavgarh'

On a wider establishment theme all the keyworker groups collaborated on the development of a particular theme. This involved adults organising an experience designed to fire young imaginations and provide a context for problem solving at both individual and group level.

A city museum had an exhibition focused on tigers that staff decided would provide a valuable source of potential curriculum work and provide the children with a unique opportunity to experience some very different animal life. The visit to the museum included a trip in minibuses painted with tiger stripes. Preparatory work had involved discussion, book-referencing and shared anticipation. Children had expected live tigers at the exhibition but the stuffed and clay exhibits proved frightening enough and a good early introduction to scale, colour and a prompt for further exploration of exhibits of tiger parts such as claws and teeth. Children were shocked and upset that claws had been obtained by hunters and questioned the practice of hunting animals. Other exhibits provided video recordings of tigers in the wild as well as artistic representations.

The exhibition visit was followed by group visits by all the children and many parents to Glasgow Zoo to see live tigers. Children had the opportunity of applying things they had learned at the exhibition to the zoo visit such as approaching the tiger pens with caution and quietness so as not to alarm the animals or scare them into hiding. When the first child exclaimed 'I can see a tiger – a real tiger!' the children's mixture of anticipation and fear was moderated by the intervention of adults and the encouragement of children to

the viewing areas where they could see the tigers at close distance through glass panels. The children's exclamations of 'Look at the size of the big teeth! Look at the giant paws! Look at the scary eyes!' were followed by that amazing empathy that animals and children seem to develop when a game evolved between a tiger and the children where he emerged from his hide when they called out and clapped – this was a highlight of the visit.

Back at the centre the children were provided with a range of materials and problems to tackle concerning tigers. This included an exploration of the purpose and use of teeth and claws, what whiskers were for, walking and stalking, foodstuffs and diet. Adults worked with children in groups, pairs or on a one-to-one basis to develop confidence, questioning and problem-solving skills. Parents were further involved with tiger games and drawings that were sent home. Even more distant relatives began to drop into the centre at the children's insistence to see 'what all this tiger stuff was about'.

In artwork in particular the children showed special development as the quality of their observations became more detailed and progressed to larger scales of representations. The work culminated in the children, staff and parents preparing and entering a tiger-themed float for the Lord Provost's Parade.

In all the work the children displayed a growing empathy with wild animals and tigers in particular. They appreciated their beauty and wanted them to be protected. Through all their learning a great sense of fun and real understanding was evident during their role-play as they dressed up as tigers and hid in the dens which they had made.

Staff evaluation record

Staff commented that their training had not really prepared them to work in this kind of way and that they had learnt on the job. Whilst the centre has benefited from staffing stability and has a developed approach into which staff have all been securely inducted, pre-service training should take more account of the importance of children's experimentation, and of pre-5 workers developing the skills required to make this way of working a success.

I have been in other nurseries and people are often afraid to give children their head. Some come to us and are quite shocked to see children using a range of tools and materials which they consider too difficult for children to manage and seeing children apparently managing themselves as they go about their tasks. Maybe they are afraid of losing control – but it is worth the risk when you see what the children achieve.

Keyworker

The children at the Pollock Centre have clearly built competencies in terms of a number of thinking skills and problem-solving strategies. They display highly creative and inventive behaviour but the staff do have concerns for their children in later phases of education, which were summed up by the head of centre.

I do have a concern for the children when they go from here. I ask myself if the system will value the fact they are confident and active and ask questions, or will they be slapped back as being precocious?

There is a real priority for all in the education system to build on such pre-5 developments as those in Pollock and to ensure continued development of creative and confident young people.

The problem-solving approach adopted by the Pollock Centre has a number of distinctive features.

- The problems are real and the children are given the appropriate tools to come up with solutions. Sometimes these tools are organisational frameworks that have been built up over time and often the tools and materials are simply those required to come up with a solution.
- The children's ideas and answers are valued and facilitated by staff sensitive to the need to promote independence and enquiry rather than adult imposition of 'correct' answers.
- Real choices for children to experience are founded on the basis of identified individual and group needs with thorough planning and record keeping.
- The efforts of the children are valued and celebrated with effective displays, parental involvement and community involvement.
- Experiences are planned to allow children to move from the concrete to the abstract and *vice versa* so that they develop all-round thinking skills.
- Where possible real people such as artists, environmental care staff and other professionals are involved within a strong focus on the natural environment.
- The context of the nursery is welcoming, secure, stimulating and highly conducive to developing confident and creative youngsters.