

An investigation into the Assessment of Visual Literacy in Children between the ages of Six and Nine.

Project Background in Brief

The Media Workshop has been working with schools in Southampton for many years and completed a Longitudinal project with Southampton Institute (now Solent University) and Southern Arts (now South East Arts) looking at how media arts can be used within the Primary Curriculum. The project evolved into two resulting products:

The first is a website – www.clicketyclick.org outlines some of the arts workshops completed during the project, using both arts and ICT.

The second was a tested research tool. The project highlighted a need for a research tool which can assess levels of Visual Literacy so the effectiveness of future art projects can be easily measured. This research tool is outlined in this document.

The Basis of the Investigation

The purpose of this investigation was to create a framework and series of tests for examining Visual Literacy development in children between the ages of 6 and 9. The tests use media-based arts, specifically photographic stills building on pilot work already completed. The investigation centres on information which children can gain from photographs.

The outcome of this research has been the creation of a scheme which allows children to demonstrate their level of visual literacy, whatever their word-based literacy and numeracy skills. The need for such a framework is examined and its usefulness outlined, including the factors which would affect its successful use in the classroom such as how Visual Literacy assessment fits within the National Curriculum.

Outlined in this report are the method and process of the investigation itself, including the background project which led to the investigation, the framework and tasks created during the investigation and a summary of the difficulties and process taken to arrive at the finished series of tasks.

Potential Uses for this Assessment Work.

The framework developed as the core of my investigation can be utilised in the following ways:

- It can be used when attempting to establish if particular arts projects have an effect on the visual literacy of children by looking at levels of skill before and after the arts projects.

- It can be used to examine differences and similarities between known social groups, e.g. Visual Literacy development among children with dyslexia, autism, children using sign language and different cultural groups.
- This type of assessment scheme can also be used to help teachers to establish which children in their classes may need more help with Visual Literacy. For instance teachers may find a child in their class has been unresponsive to word-based literacy (including reading, writing and spoken language work) but through this scheme they may be able to see that the child has high levels of Visual Literacy skills. It would only really be possible to build on a child's Visual Literacy ability and further develop Visual Literacy skills once a level of Visual Literacy has been determined through a method of assessment such as the one developed through this investigation.

It is important to be quite clear about the uses of any assessment work before the design of the tasks themselves begins, to understand exactly what is being sought and why before designing the tests. Goldstein (1991 p.6) suggests how one of the challenges of assessment work 'is to design assessments consonant with the uses we shall identify. The uses themselves come first.' As my work progressed I realised how I needed to identify the 'uses' or the precise definition of exactly what was being assessed before I could design the tests.

Of course, there may be a danger that if Visual Literacy can be assessed it may add to the already substantial level of assessment and pressure which children often suffer through primary school tests at the moment. Children already have SAT tests which examine various areas of the curriculum. Written literacy and numeracy are frequently assessed and for many children this type of testing can be difficult for those who have problems in these areas. Goldstein (1991 p.6) stresses how education is a socially co-operative exercise rather than a market place of competition. He suggests that uses of assessment should be used '...to promote learning by establishing what a student's strengths and weaknesses may be' and also '...to understand those factors which promote learning.' I would hope that the type of assessment work I have been investigating here would be used constructively to enforce this ideal and to help children who could benefit more attention to their Visual Literacy learning, not to add pressure to their school lives.

It is hoped that the assessment tool outlined in this thesis would be used in a positive manner - many children who are not able to express their abilities through word-based literacy or numeracy may be able to do so through the methods I have devised. Children may have an understanding of concepts but have difficulty in expressing that understanding and this assessment method may be particularly useful to those children.

How the Assessment Framework Has Evolved.

Dissemination of information in many societies has traditionally been reliant on word-based forms of reproduction, both written and spoken. This is perhaps partly because of the clarity offered by word-based information but also partly because reproduction of images is comparatively time-consuming. Early manuscripts had pictures which were laboriously hand-crafted, more time consuming than copying text. Even at the dawn of photography, it took several decades before photographs could be easily reproduced. This slow progress in the clear and precise multiple reproduction of pictures has meant that for many centuries word-based literacies have been central to our communication systems and also to our education systems.

In the twenty first century, however, we are in a time where visual information has reached increasingly global importance, particularly in the western world. We are constantly surrounded by images. Television and advertising are prevalent and many newspapers rely on pictures for more impact than the words their pages carry. This is a situation which has been created over some time. In 1974 Oldon pointed out that ours is a visual age. He claimed that we are bombarded with pictures from morning until night and the date of Oldon's statements suggest that perhaps for some time each decade throughout the 20th century has seemed to make more use of pictures than the last. In the 21st century, however, not only do television and newspapers carry more pictures than ever before but the internet is a heady mixture of text and images where icons and pictures are used to create symbols, links, diagrams, adverts and backgrounds. The ability to understand and create written text, traditionally known as literacy or word-based literacy is sharing page and screen space with visual information as pictures become more easily accessible and more readily used. A new picture based literacy is emerging to sit alongside word-based literacies– Visual Literacy.

This ability to understand visual information or Visual Literacy will be of increasing importance as we are swamped with visual information, through picture messaging on mobile phones and perhaps even through more frequent use of pictures in new communication technology yet to be developed while at the same time older media technologies such as newspapers and television are becoming more picture based.

It follows that being taught how to understand visual information has an increasing importance. Sless (1981, p.21) suggests that 'Our ability to read this (visual) material is almost taken for granted but it does have to be learnt...' suggesting that although understanding visual information may initially seem to be an instinctive skill, actually it can be enhanced through teaching and learning. Messaris (1994, p.4) seems to follow this line of thinking too and explains how 'The idea that attention to Visual Literacy can enhance aesthetic sensitivity and immunity to manipulation is anything but controversial'

suggesting that improving Visual Literacy skills, perhaps through teaching, can give individuals a heightened sensitivity to visual stimuli around them and also provide people with skills which help them to see when pictures are being manipulative, perhaps in advertisements or propaganda.

Kress and Leeuwen (1996, p.3) suggest that 'Visual Literacy will begin to be a matter of survival, especially in the workplace.' Clearly these researchers reinforce the idea that Visual Literacy is becoming a vital part of everyday life and that Visual Literacy skills will need to be enhanced through education.

So, with the growth in visual Information comes a need for a more visually based education so that children and young people will be more adapted to their visual world. In my experience of the current educational climate, however, attention to creative subjects seems to be dwarfed by the attention being paid to word-based literacy and numeracy, Information and Communication Technology (ICT) and sciences. Sless (1981, p.21) describes how 'Visual Literacy and fluency are skills discernible and distinguishable from literacy and numeracy which form the backbone of our educational system, but they are not subjected to anything like the intensity of teaching that students are given in language and mathematics.' Sless is discussing British education for all ages and his statement is particularly true in primary education where, due to the relatively strict structure of the Curriculum, those creative projects which time can afford are sidelined to the afternoon when children are already tired from the word-based literacy and numeracy hours, which are almost nationally undertaken in the morning. In my experience such creative based projects are often considered less vital to the curriculum than sports sessions. The effect this attitude to creativity will have remains to be seen but it may affect not only the directly creative industries such as graphics, music, creative writing and media arts but also lateral and creative thinking needed for the business world, sports world and ICT.

It was in this educational climate that I first began working on a project looking at ways of linking Media Arts with all areas of the curriculum and this chapter explains how this wider arts education research project (The Pathways Project) demonstrated a clear need for the assessment of Visual Literacy and how, therefore, this MPhil came about. The aims of my investigation were firstly to create a definition of Visual Literacy in terms of skills and abilities and then to design a series of tasks to assess Visual Literacy in children aged between 6 and 9 years old. These tasks were eventually achieved through developing and testing tasks and then re-designing and re-testing them

Background to the Project – Initial Research with The Pathways Project.

I had first begun to examine Visual Literacy as part of a wider arts research project known as the Pathways Project, which had been investigating how

Media Arts can be used as part of the National Curriculum, to fit with the prevailing curriculum emphasis on literacy, numeracy and ICT. The Assessment framework investigation grew out of pilot work undertaken during that initial wider project. The Pathways Project was established through co-operation between Southampton Institute, Southern Arts and Mount Pleasant Media Workshop and looked into how media based arts such as photography, digital imaging and video can be used to teach various areas of the National Curriculum in Primary schools. Through the Pathways Project I worked with three schools in different parts of Southampton, looking at areas of the National Curriculum such as history, science and literacy and how to teach these subjects using photography and digital imaging.

While undertaking these arts-based projects I realised there was a need to evaluate properly the effect of the arts projects on aspects of the children's development. This would be necessary to really see if the arts projects were having an effect on the children's development. In order to do this type of assessment I decided to try several media so photography, drawing and collage skills were part of the original, preliminary investigations, followed later by methodologies involving video and classroom observation.

Eventually, however, I decided to use photography as a tool to stimulate the children to demonstrate a range of skills related to creativity and Visual Literacy. Photography seemed the most appropriate media for several reasons. Firstly photography would be useful because of the ease with which it can be used and examined by the children. Because of photography's popularity as a means of recording events involving friends and family, it is a familiar medium to most children. I felt this familiarity may enable the children to look further than just the type of media used or the way the image was created and begin to examine meaning more easily.

Secondly photography is very useful as a tool to demonstrate observation and interpretation skills. Newbury (1994) suggests that Photography is one of the most important media through which we can discover ourselves, others and the world we inhabit, hinting at its use as a tool to help observation. By freezing a moment in time photography offers an opportunity to see further than the superficial and to examine the world contained within each picture in more depth. Similarly when children are asked to take their own photograph they may spend some time deciding what should be excluded and retained within the frame. This in itself is an exercise in observation and interpretation, deciding what visual factors are important for the meaning of the photograph.

I also believed that photography, rather than paintings or other images, would be useful because I felt interpretation of the particular photographs I was choosing could be reliable. Commentators frequently disagree on the interpretation of paintings and I needed images which I could in some part

understand for the purposes of the test. In fact I mainly used photographs which I had taken so that I completely understood the pictures and thus could more accurately ask questions about the images.

Finally, of course, there was the question of permission to use pictures. When I eventually began to use photographs I myself had taken I no longer had any difficulties with seeking permission to use the photographs, only needing permission from the subjects of the pictures not the photographer.

Examining the Skills which form Visual Literacy.

Several different lists of skills which form Visual Literacy were examined and tested but after many pilot studies the following list of skills to be assessed was formed.

Observation Skills - the ability to observe visual signifiers within the context of the visual text or picture would involve both being able to notice visual signifiers and then being able to realise these visual signifiers were important giving the following abilities:

Ability to notice visual signifiers within the photograph accompanied by:
The ability to realise the importance of these visual signifiers.

Interpretation Skills – the ability to interpret the skills which have been observed would involve:

Ability to interpret the visual signifiers by using information gained through observation skills.

Drawing conclusions from that information.

Ability to understand compositional elements -including colour as used in composition, shape, rhythm etc. would involve focussing on:

Shape

Pattern

Rhythm

Colour

(In accordance with the National Curriculum.)

Analytical skills used to define likes and dislikes of visual information. would involve:

Ability to find and use analytical language

Ability to understand the aim of the creator

Ability to understand one's own personal opinion of visual information – self-awareness.

Ability to analyse one's own work would involve:

Ability to find and use analytical language

Ability to separate personal emotions attached to the work from the resulting work itself.

Ability to understand one's own personal opinion of visual information – self awareness

Response to colour in a non-compositional context would involve:

Ability to recognise different colours

Ability to respond to different colours in different ways.

Ability to make judgements about the creators use of colour in the picture.

Emotional response to pictures would involve:

Ability to recognise emotion-based visual signifiers

Ability to respond to emotion-based visual signifiers

Ability to identify emotions being portrayed.

With the definition of Visual Literacy operationalised in this way as a series of skills and abilities it is possible to build on the previously completed tasks to create a series of tests with which to assess visual literacy. The design of tests to investigate the observation and interpretation of visual signifiers needs very careful consideration particularly with regard to the type of picture which is used. As I discovered through my investigation the pictures not only had to contain visual signifiers which were specific to the skill being assessed but those signatories had to be as clear and unambiguous as possible to enable the children's answers to be understood easily. For instance if a picture shows people holding umbrellas we may be able to say it is either raining or very hot in the place which was photographed. If there are also puddles with ripples in circles it may be that it is raining or has been recently. The puddles, the umbrellas, the ripples are all visual signifiers, clues which help us to decide what is happening at the moment a photograph was taken. Barthes (1962) defined a signifier as a 'mediator' a kind of gateway behind which lies the signified or this case the information contained in the image. The children's responses to the visual signifiers is the key to the skills used in Visual Literacy and would provide one of the keys to the task designs.

These skills were examined and tasks devised, tested, modified and re-tested, eventually creating a tool which was considered to be accurate by both the myself and the teachers involved in the project.

Conclusions regarding the Assessment Scheme.

There were various initial criteria by which the tested and redesigned tasks needed to be assessed in order to gauge their success.

First of all the full series of tasks had to show a full range of the skills required for Visual Literacy. These skills were defined and over a period of time they were narrowed down and tasks designed to assess each skill. The booklet contains tasks which assess each skill and which have been designed from the testing and re-designing which has gone before.

Secondly the tasks had to be able to demonstrate a range of skill levels and ability. The judgement of this criteria was based around the idea that if the groups of children scored a range of marks then the task was showing a range of ability levels and/or levels of ability for each skill. If every child answered the question correctly with a perfect score (maximum of 7 for each task) then the children had all reached that stage of development sometime before and if none of the children answered correctly then the children had not yet reached this stage of development. An alternative to this might be that the children could not understand what they should do for the tasks but in reality this never happened since each task had at least several high scoring answers. I also had the great benefit of being present when the tasks were tested and could make some general qualitative judgements about the ease with which the children answered the task.

Thirdly the booklet as a whole had to be practically usable in the classroom. Several methods of testing had been abandoned because they would not be practical, for instance video interviews or recording information. The difficulty with the booklet of tasks centres around the different non-Visual Literacy abilities of each child being tested. It was necessary for task questions to be read out for some children.

From the evidence of the previous testing and from testing their booklet on all of the schools involved we believe that the tasks meet all the criteria. They assess levels of each skill which have been defined within Visual Literacy and they are capable of showing differing levels of ability among the children and that the tasks could be practical for use in a classroom situation. As such this is a set of tasks which could be used as a research tool for further work.

This research tool has many potential uses, particularly as a tool for further research where children have difficulties in expressing their understanding of concepts either in a verbal or a written format.

Examples of Completed Tasks.

This task examines analysis, interpretation and emotional response.

What does the picture use to send
back at the picture and think back.



angry neutral surprised
sad happy calm
worried frightened hot


Circle the words which best describe the picture.

How does appear in the photograph and decide what that is the picture all you
but the words to. When you have decided either write down or draw those ideas.
You may want to circle those ideas on the picture.

she is looking but
back down and getting sad
it's like her long hair and
her.

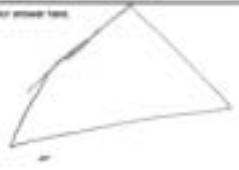
The following task examines ability to understand compositional elements.

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In this picture is a shape which is repeated (appears
more than once). Can you draw that shape in the box
below?

Show your answer here.



The following task examines observation and interpretation skills.

hannah task 13

Look carefully at the pictures below. Why do you think I took them?



an advert

a magazine or newspaper

My photo album

a cd cover

For each photograph draw a line which links the picture to the reason for taking it. Please explain your answer in the box below. You can draw or write your answer or you may want to circle parts of the photograph.



For more details of tasks and the mark schemes please refer to 'An Investigation into the Visual Literacy of Children between the ages of Six and Nine' Rackham, Caroline. 2004 held at Solent University Library and at the British Museum.

Or contact Caroline Rackham on 023 80 231 977.

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