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INTRODUCTION

A large range of visual material which is suitable for use in education is currently available. At no other time has it been possible to take advantage of such a rich variety of visual media. Methods of printing such as photocopying, photography, and electronic instruments such as overhead projectors, are now widely available. It is now generally accepted that learning is greatly enhanced by the use of visual aids, charts, slides and audio-visual equipment. However, I feel that the potential contribution of such visual communication aids is not being realized.

I think that the importance of visual education is an area which requires much further research and development. In today's world, visual material is being directed at all age groups, from the very young to the very old. The question has to be asked, when does visual communication begin? As children enter education they have already been subjected to unmeasured amounts of visual material. I hope to deal with how visual aids could serve as a motivating factor for students and as a very helpful element of teachers' methods of teaching. In general, students outside Art do not receive large amounts of visual media in the other subjects in the curriculum. I feel that visual aids could be introduced into other areas of the curriculum such as Geography, Science and Home Economics. Teachers do not, I believe, have to be good at drawing or design to produce effective visual aids.

In Art Education I think visual aids should be a source of motivation to students. They serve many purposes in the artroom and can be useful examples to students in themselves. I will give some examples of visual aids that I have used in the classroom to illustrate this point. I have included a class project which I think shows the real value of visual aids in the teaching of Art, Craft and Design. In the day to day running of an art class they are an invaluable resource for every Art teacher.



CHAPTER 1

VISUAL COMMUNICATION TRANSMISSSION

The process of visual communication is a very broad topic. There are many areas involved. We all know that we see by using our eyes, but how the image is interpreted by an individual is a completely different matter. I think that this is where education can make a huge difference. David Sleiss says,

In many areas of knowledge where observation forms a central role, one of the primary tasks of the educator is to develop in the student an ability to structure, organize and give meaning to visible evidence (1).

Since time began, man has left evidence of his ability to communicate visually. The caves at Lascaux in France demonstrate early man's desire to permanently display important aspects of his life. It is highly likely that transmission of visual communication was used long before the spoken word began to take over. Certainly, reading and writing were much later developments. E. H. Gombrich says:

The most likely explanation of these finds is still that they are the oldest relics of that universal belief in the power of picture making. (2).

I think it is true to say that these images are as powerful and expressive today as when they were created by the artists.

Basically there are two parties involved in the process of visual communication, the author and the intended receiver of the author's message. The author, who constructs the visual material, must convey his message clearly and effectively to his intended audience. This holds true in many areas of visual communication such as art, advertising and in education. In education it is the teacher who assumes the role of the author. Many examples of totally diverse forms of visual communication are to be seen in our everyday lives. Sleiss says,

It is not unusual in everyday conversation to hear the phrase 'How very effective!' being used as part of someone's critical vocabulary about a painting, a poster, a television programme or any piece of communication (3).

What may not be realized very often is the process and skills involved in effective visual transmission of information. The effectiveness of any piece of visual communication is something which cannot be measured accurately. The response of an individual to a visual stimulus is something which is unique to each and every individual. A good education in the visual arts, for example, may evoke a different response in one person as opposed to someone who has had very little exposure to visual stimulus. The teacher is, in some ways, similar to an advertiser.

They are both trying to convey a particular message. In the case of the teacher, the message is usually educationally important. The methods employed by the teacher must be effective and may also have to cater for students who are at different levels in terms of ability. Gayne and Briggs are of the opinion that,

... unplanned and undirected learning, we believe, is almost certain to lead to the development of individuals who are in one way or another incompetent to derive personal satisfaction from living in our society of today and tomorrow. A fundamental reason for instructional design is to ensure that no one is 'educationally disadvantaged', that everyone has an equal opportunity to use his (or her) individual talents to the fullest degree (4).

To ensure that he or she is being as effective as possible, the teacher must ensure that the methods and materials being used are appropriate and educationally correct. I think that it would be desirable for this reason, that many teachers who may require skills in techniques of visual communication in their particular subjects should be given proper training and instruction in methods of visual communication. In subjects such as Geography, Science and Home Economics, for example, teachers would find good visual aids very useful in their teaching, thus ensuring that their students would be certain of what they were talking about. Likewise, I think that the students themselves should be given instruction in receiving and transmitting visual communication, so as to ensure that the process of visual communication is given as much importance as verbal or written communication.

Advertising companies have recognized the importance of visual communication by selling their products. Many spell out advertisements aimed at particular audiences e.g. advertisements for articles such as jeans or toys are all aimed at a younger audience. Very often words are not needed at all, as most young people nowadays recognize symbols, labels, or logos and identify with some more than others. The power of advertising in the mass media is just one area where the power of visual communication has still to be properly utilized.

FOOTNOTES CHAPTER 1

- David Sleiss, <u>Learning and Visual Communication</u>, (London: Croom Helm, 1981) p.21.
- 2. E. H. Gombrich, The Story of Art. (Oxford: Phaidon Press, 1950) p. 22.
- 3. Sleiss, Learning and Visual Communication, p. 43.
- 4. Ibid., p.80.

CHAPTER 2

WHEN DOES VISUAL COMMUNICATION BEGIN?

A child's world is a visual world. Things such as movement and colour are the most important sources of stimulation for the young child. The environment in which a young child is reared may be most likely to contain all kinds of visual imagery. It is very difficult to judge just how a child is affected by what he or she sees. According to Eisner,

Children coming from low income minority groups, especially the children of the poor living in ghettos, do not develop some types of perceptual abilities at the same rate as the children of more affluent parents. (1).

In modern society, the television set has become a very important source of visual communication. Sleiss says,

Long before children confront their first slide and tape programme, illustrated text or schools broadcast, they have encountered the television set, picture books and the back of the cereal pack. (2).

The means of communication which educators have been so eager to embrace are widely exploited in mass media. I think it is important to realize that children have received a whole range of visual imagery before starting school. Much of this information is very carefully constructed by professionals who know what they want to achieve. Soon, children begin to associate language with visual imagery and this opens up a whole new range of possibilities. Young children's books usually take the form of mainly visual material containing very few words. This then progresses, as the child grows older, in the opposite direction, where words become predominant. The child's pre-school years are very definitely influential on a child's future development. However, there is very little control exercised over the visual education that the young person receives. At this stage it is the child's parents who are responsible for the child's experience of visual communication.

Language is generally regarded, as the primary means of communication in the school system. However language, written or spoken, may not always be the most effective means of communication.

Just before the age of two most children are going through a very active period of language acquisition. Progress can be very easily recorded and monitored. Acquisition of visual language cannot be as easily monitored. Sleiss says,

The acquisition of language involves far more than just the rules for naming, and the recognition of objects in pictures must, because of the variety of different kinds of pictures, be explained in more than one way. The basic principle behind picture perception, the 'stand-for' rule, which as already been learned in relation to other material and is simply extended to another feature of the child's environment. O'Connor and Hermelin (1961) showed that children with a mean I.Q. of 50 could identify objects named from pictures of these objects. This suggests that pictures are at least no more difficult than the spoken word when it comes to 'stand-for' relations. (3).

It is obvious therefore that visual communication plays a very important role in language acquisition. Pictorial images and pictures are necessary for a young child to learn to communicate. This is why visual communication is very important to human beings from the very beginning. Areas such as the media, children's books and comics are all part of a child's informal education in visual communication. Different children will receive total different experiences, depending on their environments. It is only when the child enters the educational system that his visual education can be structured and monitored. FOOTNOTES CHAPTER 2

- Elliot W. Eisner, <u>Educating Artistic Vision</u>, (New York: MacMillan, 1972) p.67.
- 2. Sleiss, Learning and Visual Communication, p.63.
- 3. Ibid., p.70.

CHAPTER 3

VISUAL COMMUNICATION IN THE CLASSROOM.

In Ireland, as in a lot of other countries, for students who do not study Art and Design, their visual communicative skills are not being developed. The advantages of visual communication which are being used by the media are not being recognized by the educational system. There are other subjects besides Art which do contain necessary visual inputs. Geography, Science subjects such as Physics, Chemistry and Home Economics all rely in many instances on diagrams and charts to explain various elements of content. However, no provision has been made in the curriculum to ensure that all students are capable of "reading" visual information. Sleiss says,

Literacy and numeracy skills are continuously monitored as students progress from infant school up to tertiary education. Every effort is expended to ensure basic mastery in these vital social skills. But, even if one takes account of the currentvogue in media studies and the confused area of art education, there is no equivalent pressure to acquire skills in the Reading of drawings, photographs, television or cinema. (1).

Realistically, many students, under present conditions at least, will not receive much education in Art and Design. Unless there is a major curriculum development which would specify Art and Design as a compulsory subject this situation will remain the same for the foreseeable future. Consequently, other teachers who may not have had any experience in visual communication, are responsible for the development of the visual side of many children's education. It is necessary to start with the teacher and to ensure that proper methods of visual communication are used. The visual aid is the most important element of visual communication in the classroom. Through the proper use of visual aids and knowledgeable explanation by the teacher, learning becomes easier and, because the content is visual, more easily remembered. The most common sources of visual aids in many classrooms are slide projectors or overhead projectors. If used in the correct way, these items are a very valuable resource for teaching. The use of visual aids such as these requires a lot of skill and it is only through experience that a teacher will perfect his technique. The most important point to remember is, I think to keep items such as slides in context with what is happening in the classroom. A few slides shown in context regularly is better than showing a lot of slides together in one session. Likewise, one well done graph or chart may be all that is required to reinforce a lesson visually. The key to all this is the organization of the teacher and the preparation of visual material before class begins. N.D.C. Harris, referring to presentation says,

It is in this area that care is needed in the selection of print format, in the acceptable norms of audio visual production and even in the performance of the lecturer and his chalkboard presentation. (2).

Many teachers like many students, will not have had any training or experience in the visual arts. Drawing diagrams would not be an easy task for most of these teachers. This is a major disadvantage in many subject areas outside of Art. We've all heard the saying, "A picture tells a thousand words" unfortunately many teachers would prefer to use a thousand words. This is one reason why I think teachers of all subjects should undergo some sort of training in aspects of visual communication. Langford says.

The trend away from the 'print-dominated approach' in modern methods of education and training makes it obligatory for the teacher to have some practical knowledge of the whole field of audio-visual (a.v.) techniques. (3).

The importance of visual communication in the classroom is equally great in all subjects. Different subjects may require different methods of visual communication. Mathematics for example requires graphs, geometric shapes and symbols which stand for various figures. A subject like Geography, on the other hand would be

mainly concerned with bar charts, cross-sections, map reading and simple explanatory diagrams. However, across the curriculum, it is obvious that visual communication is valuable in one form or another.

FOOTNOTES CHAPTER 3

- 1. Sliess, Learning and Visual Communication, p.63.
- N.D.C. Harris, <u>Preparing Educational Materials</u>, (London: Croom Helm, 1979) p.16.
- Michael J. Langford, <u>Visual Aids and Photography in Education</u>, (London: Fletcher, 1973) p.10.

CHAPTER 4

VISUAL AIDS IN ART EDUCATION

The Art and Design teacher has one major advantage over other teachers in that he or she has been trained in visual communication. In this way, visual aids should be easily and effectively used in the Art Room. The subjects of Art, Craft and Design are, by their nature, full of concepts, processes and techniques. For the beginner, visual aids are necessary to explain a concept clearly, and without confusion, especially where abstract thinking is required on the students' behalf. If one is talking about colour, for example, there is no point trying to explain matters relating to it without visual aids to demonstrate different areas associated with it. One of the biggest tasks facing the art teacher is the effective stimulation and motivation of the students. Where concepts are being dealt with, students, unless sufficiently motivated, will very quickly lose interest. Langford says,

Effective aids made by the teacher himself invite co-operation - students are often interested in material made especially on their behalf, particularly when the teacher can add relevant items of information about the original subject matter. (1).

Visual aids need to be simple, yet effective. The teacher must ensure that when a visual aid is used in a classroom situation that it will be clear to everybody what the aid is demonstrating. Informed commentary from the teacher should also complement the visual aid by referring to its qualities and reinforcing it's message. If well designed and executed the visual aid should be virtually self-explanatory to the

learner, Langford says,

We have to ensure that an aid is presented in its final form it will be immediately legible to all learners in the group. This involves considerations not only of artwork itself but also the physical method of final presentation, brightness of image relative to surroundings, time for viewing and the visual acuity of the individual student. (2). Many areas of art such as colour, line and tone could pose major difficulties for students who are being introduced to these concepts for the first time. Proper visual aids can make learning easier, and much more stimulating. The visual aids shown in diagrams 1 and 2 demonstrate two basic principles, i.e. line and tone. Immediately upon first viewing these two diagrams, the students should notice that they are both similar in content, yet No. 2 seems to be more three-dimensional. The teachers can seize upon this opportunity to question the students and to try and get as much information from them as possible. This type of interaction is a very good learning situation which is much more effective than the teacher telling the students what "line" is and what "tone" is. This type of visual aid, which is in two parts gives students the opportunity to compare and contrast both parts and to see what qualities tone, light and shade, brings to a drawing or painting. The drawing in both cases are simple, without any distracting details such as labels or background. In this case lettering is not required, to reinforce the concept. A simple talk through by the teacher will be sufficient to explain the visual aids.



One of the most popular visual aids in Art education is the colour wheel. The colour wheel, as demonstrated in diagrams 3, 4 and 5 is the most common form. These visual aids demonstrate primary, secondary and tertiary colours. They are simply done out in three separate stages and also demonstrate the principles of colour mixing, complementary colours and colour contrasts. Given to students as an assignment to complete, they are an ideal way of learning practical skills of mixing and applying paint and conceptual appreciation of colour.





The Colour Wheel - Primary and Secondary Colours.





The Colour Wheel - Tertiary Colours.

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This is a case of where good visual aids are necessary in Art education. The simple, yet very effective, use of a visual aid such as a colour wheel gives a good insight into the effectiveness and importance of visual aids in the classroom.

The Art teacher also has at his disposal slide projectors, posters, books and video equipment. These should, however, be used in conjunction with specialized visual aids such as those mentioned earlier. I think that the art teacher should use his specialist skills of visual communication in his teaching. The use of such visual aids will enrich the learning experience of the student and also develop his visual communication skills. With improved reproduction techniques in areas such as photocopying, photography and slides, much more can be done to enhance the area of visual communication in the classroom.

With all these technological advancements it is, however, easy to forget the advantages that drawing and illustration can offer especially where visual aids are concerned. Sleiss says,

I am of the opinion that the dominant expectation of pictures is that they are to be used as simple descriptions. This is clear from psychological and pedagogic literature. Their use as explanations would seem by comparison to be largely underdeveloped and certainly unexplored outside certain areas of specialism. (3).

Drawings can be used to help simplify and clarify a process which involves a number of stages. While a demonstration may show clearly all stages involved, students may often forget certain important points involved in the process. This problem can be overcome by the use of visual aids which sequentially demonstrate each stage involved in the process. This type of visual aid can be numbered for clarity, and any important points can be written underneath. Figures 1- 6 show a sequence of drawings showing the process involved in string printing. These drawings are graphical descriptions of the entire process from beginning to end and serve as a reminder to the student if in doubt. Visual aids such as these are used widely, not just in the classroom. Commercially, they are useful as instructions for certain products such as electrical appliances. Visual aids such as these have an international usefulness and can avoid confusion in areas where language might be a barrier.

Students of Art and Design could be encouraged to use such visual communication skills in other areas of the curriculum. Diagrams such as those shown in figures 1-6 could be useful in other subjects where techniques are involved. Science, Geography and Home Economics could all benefit greatly from such a development. However, in the area of Art education, visual aids are indispensable. Their importance cannot be underestimated in the teaching of all aspects of Art and Design.



String Printing visual aids No - 1 and 2.



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String Printing visual aids No - 3 and 4.



String Printing visual aids No - 5 and 6.

FOOTNOTES CHAPTER 4

- 1. Langford, Visual Aids and Photography in Education, p.125.
- 2. Ibid., p.133.

3. Sleiss, Learning and Visual Communication, p.125.

CHAPTER 5

CLASS PROJECT

I have chosen a particular project which I feel demonstrates the effectiveness and importance of visual aids in Art education. This project consists of the design and construction of a puppet and involves numerous stages and techniques throughout. Many of these would be new to most students and so careful planning was required to ensure that every student knew exactly what was required for each stage. In a class situation, it is very often easy to forget that some pupils are more adept in certain areas than others. The style of visual aid that I chose to do for this project was a sequential group of illustrations with accompanying explanatory text. The success of this project was due to a large extent, to the visual aids.

On introducing students to a new sequence of work it is necessary to motivate them from the beginning. As preparatory work for the puppets all students were required to study the human head. I felt that self-portraiture was the most effective and stimulating way of beginning this. The human head, is a complex structure to draw and in a typical child's drawing of a head many of the proportions bear little resemblance to the real thing. However, I think it is better not to confuse young students at this stage by over-complicating things with too many rules and measurements for proportions. With this in mind I chose a simple visual aid which shows, very simply, the spacings required for eyes, nose, mouth and chin in relation to the head as a whole. The students were required to bear these in mind when completing their selfportraits. The results showed that this visual aid was effective and that the students understood the concepts.

After three weeks studying aspects of the head and face I felt the students were ready to proceed to the next stage. The visual aids show the whole sequence of

making the puppet from the beginning to end, and in this way, the students understood the objectives to be achieved every week. Stage No. 1 involved the preparation of a clay ball and modelling a head on an armature. Here, the students are learning to use new materials and develop new skills. This is a strong motivating factor in itself. An example of a completed puppet also provided a stimulation for the students as they began the first stage.

Stage two of the project involved taking a cast of the finished clay head using a technique involving scrim and "copydex" glue, which is a form of laytex. The visual aids, were being constantly referred to by the students and provided clear and exact guidance during each stage. In this way, I as a teacher, could give my time to the practical assistance necessary during such a project. As the project progressed some students began to work faster than others. Usually this can be a problem, but in this case, the students knew what was expected after completing each stage. This is where the importance of visual aids can be clearly seen. As the students had a week between each stage of the puppetry project, the visual aids proved to be a very good way of focusing the students and referring to work done in previous weeks. The students could assess personally how they had progressed from the beginning to their present stage.



Without proper visual aids, I do not think the smooth running of a project like this would be possible. The students like to know exactly what is expected of them and how they are performing. Visual aids are invaluable in this regard. The time spent on planning and creating visual aids, is I believe, time well spent.



Puppetry visual aids No -1, 2, 3 and 4.

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Puppetry visual aids No - 5, 6, 7 and 8.

Puppetry visual aids No - 9, 10, 11 and 12.





Puppetry visual aids No - 13, 14and 15.



Students at work No - 1 and 2.



Students at work No - 3 and 4.





Students at work No - 5 and 6.



Students at work No - 7 and 8.

CONCLUSION

There are two people involved in visual communication: the author and the receiver. Effective visual communication involves the effective production of visual media by the author and the ability to interpret these media by the receiver. This process is used in such areas as advertisements and a major industry has grown out of it as a result. Children are now being targeted at a very early age. Schools will have to become more aware of the power of visual communication and utilize this in areas such as teaching methods.

Visual communication begins long before the written or spoken word and is a major part of a young child's world. Upon entering post-primary education, the visual image lessens in importance. In the classroom, visual aids are an effective and easy way of teaching many aspects of various subjects. Teachers can use such aids as overhead projectors, to improve their teaching techniques. If proper training was provided, I am sure many more teachers would introduce far more visual content into their lessons. Items such as charts, diagrams, illustrations and slides have uses in a wide variety of subjects.

In Art Education, the Art teacher is dealing with the visual part of a child's education, and so, visual aids are an integral part of this process. Clear, concise visual aids are irreplaceable in Art education and this should also be the case in other subjects in the curriculum. I am particularly referring to subjects such as Geography, Science and Home Economics where visual aids have as much relevance as in Art.

The importance of visual aids in education has yet to be realized. In time, I feel, that this will change. Teachers who may now have reservations about their abilities to produce visual material for classrooms should investigate ways of introducing visual content into their subjects. I feel that this area is too important to be ignored.

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