

## Teaching Information Skills in the UK Elementary School

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The term 'information skills' has, in the past, had more currency in post-elementary education than in elementary. Although most teachers at post-elementary levels are cognisant of the need for their students to develop skills of locating information, learning from it, and using it in appropriate ways, teachers of young children have traditionally been more concerned that their students acquired the 'basic' skills of reading. Whether these children could apply their reading to real situations and use it as a tool for learning was a secondary consideration. There is abundant evidence from research in United Kingdom schools that children in the primary school (age 5 - 11 years) tend not to be taught skills of locating and using information in their reading lessons (Maxwell, 1977; Neville & Pugh, 1975, 1977; Southgate, Arnold & Johnson, 1981). If there is instruction, it tends to be haphazard and ad hoc rather than systematic. Yet it is recognised in both the United Kingdom (D.E.S., 1975) and the United States that, "Teachers must instruct students in strategies for extracting and organising critical information from text", (Anderson, et al., 1985, p.71). Teachers should also become concerned with the problem of how their students can be taught to handle the range of information that will confront them in the world outside school. The issue is not simply one of developing comprehension and teaching study skills. Information skills have a wider importance than simply school-based activities, but include also the ability to handle effectively such tasks as form-filling, following instructions, responding or not responding to publicity materials etc. which have to be dealt with in the outside world.

It is certainly not necessary to postpone all teaching of these skills to the later years of schooling. There is much elementary school teachers can do to help. There are two major questions which need to be dealt with. The first step is to make some kind of definition of what skills are included in 'information skills'. Secondly some thought needs to be given to possible teaching approaches suitable for young children.

### Defining the skills

A definition of information skills can begin with an analysis of the process of using information. This seems to comprise six main stages. (Winkworth, 1977).

1. Defining subject and purpose This involves a specification of what information is required and why. Children need to be encouraged to specify as precisely as possible what it is they want to find out, and what they will do with that information when they have found it. They need to be assisted to move beyond the very common specification of purpose which begins "I want to find out about.....". This is too vague to be useful, and needs to be made much more specific. Children will obviously need help to do this.

2. Locating information Children need to be able to find the information they require in libraries, books or other sources as appropriate. To do this they will need to know how to use the library system to track down likely sources of the information required, how to find information efficiently in books and other sources, but also how to use the most important information resource - other people. Asking the right questions is an important skill which many adults are insufficiently practised in. To this list must also be added the skills of using the

various tools of information technology to retrieve needed information. Viewdata systems and computer data-bases are all extremely useful sources of information in the classroom, but not unless the children possess the requisite skills for using them.

3. Selecting information They then need to be able to choose the specific information required to meet their purpose as identified earlier. Children very often find it very difficult to be selective in the information they extract from books in particular, often resorting to wholesale copying of large extracts. They need to be shown how to match their particular information requirements with what is available, and how to take note of information rather than copy it.

4. Organising information They will need to synthesise the information they find into a full answer to the original question. Pulling together information from a range of sources can be a very demanding task. It is, however, made a good deal easier if the information need is defined very precisely, as suggested in stage one above. Children need to be positively encouraged to consult a range of information sources in their quest, and then to look for common points, or instances of disagreement in their notes.

5. Evaluating information They should then go on to evaluate the accuracy, relevance, and status of the information found. Children will naturally tend to believe, as will many adults, that everything they read in books is bound to be true. The teacher may need to deliberately confront them with examples of incorrect or biased books if a questioning attitude is to be encouraged. Possibilities for this include out of date books, newspaper reports, and advertising material.

6. Communicating results The final step involves some kind of presentation of the information found, either for their own personal use later, or for the use of others. If children are encouraged to think of a definite audience for their finished work then it will be possible to get them to assess the work's appropriateness for this audience by actually having their work read. The example of this which immediately springs to mind is that of older children preparing information booklets for younger children in the same school, although there are many possibilities available for children to prepare reports of particular information - finding activities to pass on to other readers.

### **Finding teaching approaches**

The second problem is that of devising suitable teaching approaches for these skills. Opportunities need to be taken to teach information skills across a wide variety of content areas. This may well mean engineering teaching situations in which these skills can be developed. Three considerations need to be borne in mind.

1. The context of the teaching. Teaching these skills in separate lessons would not seem as effective as integrating their teaching into a variety of content areas. Specific exercises on such topics as "Using an index" or "Using an encyclopaedia" may have their place, as will be suggested later, but there is a danger that they can become ends in themselves. If this happens it will be difficult for children to apply what they learn through these exercises to real-life information-handling situations.

2. The structure of the teaching. The teaching should be gradual, sequential and cumulative. A school should arrive at a definite policy for the progressive teaching of these skills over several years. They will clearly not be mastered in one series of lessons or even one year, and will need

to be introduced and built upon over the whole of the student's time in school. This policy will also need to take into account the ages and abilities of students throughout the school.

3. The content of the teaching. It is insufficient to teach these skills through explanation alone. Children need guided practical instruction. The most effective means of instruction will probably be to put children in a situation where they have to use the skills to find and handle information which interests them. This will give them essential practice in using these skills, and will also show them that they have a real purpose and benefit.

One of the most useful opportunities for teaching information skills can be during some form of project work. This is a technique much used in British primary schools and involves focussing children's work on a particular theme for a period of from 4 to 8 weeks. Children may, for example, work on the theme of 'Houses', and have lessons on, or research, the historical development of houses, houses in different parts of the world, some of the scientific principles involved in building houses. It can be seen that, for a period, almost the entire curriculum of the class can be based around the project theme. Naturally there is scope for a good deal of practise in all the language arts.

The project approach has been heavily criticised for often producing nothing more than "uninvolved copying" (D.E.S., 1978; Maxwell, 1977), but it does offer a superb context for the exercise of the whole range of information skills. The teaching of these skills within a context meaningful to the children is of the utmost importance, and project work can provide a highly motivating and child-centred set of activities in which effective skill development can take place (Wray, 1985).

A project to be of maximum benefit needs to be organised according to a systematic plan and one means of such organisation is given below, described in the context of one particular project which was carried out with children in a British third year junior class (fourth grade.)

The project was entitled 'Holidays', and arose through interest generated in the class by the children's sharing of their plans for holidays during the coming vacation. Not all the activities undertaken will be described, but only sufficient to give a flavour of the approach.

a) Devising aims. The first step was for the children, under the guidance but not domination of the teacher, to decide upon what they hoped to achieve during the project. (It was felt important to give the children as much responsibility for planning and running the project as possible. Their commitment was felt to be crucial if the aim of setting skill teaching within a meaningful context was to be achieved.) Two of the goals which were specified for the project were for the children to produce their own holiday brochures for places they had visited on holiday, and their own passports.

b) Making plans. The next step was to decide how to set about achieving the specified aims. Again the teacher and the students did this collaboratively. It was decided that examples of holiday brochures would have to be obtained as well as other information about specific holiday areas. This involved making arrangements to visit travel agents as well as the local and school libraries. It was also decided that a real passport would be needed and after some discussion one of the children offered to bring in his mother's! Plans were made to visit local post offices to ask for passport application forms. Eventually sufficient of these were obtained to enable each child to fill one in (for practice). All the tasks were delegated and working

groups established, each with a timetable within which their particular tasks needed to be completed.

c) Implementing plans. In carrying out the plans that had been made the children had to exercise a whole range of location and selection skills. They had to obtain information from books and other printed materials and also by asking questions of people. They had to physically go to where the information they wanted was to be found, either in libraries, post offices or travel agents, and they then had to get the information and bring it back to school. They then had to evaluate the information and put it together into an appropriate form. They had to fill in forms (monitoring each other to ensure they did it correctly), design their passports, and join together descriptive prose and appropriate pictures to produce holiday brochures which retailed information in an accurate and attractive way.

d) Evaluating progress. The children and the teacher were continually evaluating the success of the process. Regular sessions were held in which groups reported back on their progress. Their form-filling was monitored by other children, and those responsible for obtaining things like printed brochures from travel agents were under a good deal of pressure from their classmates to deliver the goods on time. At the end of the project other children were allowed to read the completed brochures and were asked their opinions as to whether these gave sufficient information to enable a choice of holiday resort to be made and also whether they presented the resorts in a suitably attractive light.

During the project there were several opportunities for instruction in information skills, particularly those of evaluating and synthesising information from a range of sources. Occasionally groups were brought together who seemed to be having similar problems and direct instruction was employed. Twice the whole class were brought together for some work on critical reading, using a selection of advertisements and newspaper reports. On many more occasions individual children's difficulties were highlighted and attempts made to deal with them on the spot, using a variety of resources. Commercially produced books of exercises on such topics as 'using an index', or 'skimming' were found very useful for this. It was felt that instruction during the project was more likely to have had lasting effect because it was set within a meaningful context. Children could, it was felt, see a purpose in this instruction simply because it was helping them achieve better results in a project in which they were very interested.

## **Conclusion**

The integrated approach to teaching information skills, whether through project work or other areas of the curriculum makes certain demands on the teacher. He/she needs to have readily available substantial collections of suitable skill development activities. Also vitally necessary is the ability to spot the points at which instruction is most likely to be effective. Thus the approach can be extremely demanding for the teacher. However, the potential for purposeful and productive learning is vast, and it is also much more likely that skills learned in this way will transfer to other areas.

## **References**

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