

# Imperatives in Instructional Materials

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*Five major issues in the use of instructional materials are discussed by Stephen M. Corey of the Department of Education, University of Chicago. In his treatment of these issues, relationship between the quality of learning and the availability and use of materials is emphasized.*

IT IS INTERESTING how often we teachers use a semi-technical expression without being much concerned about its meaning. Take the term "instructional materials" as an example. It is almost impossible to define instructional materials neatly so as to separate them from other aspects of the child's learning environment.

Books and printed materials in general are called instructional materials by common consent. So are teaching films, pictures, maps, recordings, globes, and charts. A pencil, however, is usually not called instructional material unless a child takes one apart to learn more about it. A school journey is not instructional material, but many of the objects to which the children react on a school journey may well be. A teacher, as such, does not illustrate instructional material, but she gets close when children react to her so as to learn more about teachers. This sometimes happens.

A transcription or recording is included under the heading, "materials of instruction," but children actually do not react to the transcription unless they may test it to see if it bends. Children react instead to words coming out of a loud speaker. These words are determined by minute scratches on the surface of the transcription. The loud-

speaker itself would not ordinarily be classed as instructional material, nor would a motion picture projector. These latter two bits of apparatus, however, are necessary in order for certain types of instructional materials to be used.

## A Means to an End

Despite this difficulty of defining instructional materials exactly, almost everyone understands in general the meaning of the expression. Certainly instructional materials of any sort, no matter how defined, have one major function. They tend to control the experiences of children so that their activities will result in desirable learning. Teachers request—or teachers and pupils decide—that a certain text (instructional material) should be read because of their belief that reacting to the words in this text will bring about needed changes in behavior. Presumably this particular text is chosen because it will enable the boys and girls to learn most efficiently whatever is to be learned. In other words, the text represents a choice among a variety of instructional material.

There is the same general situation when boys and girls study a motion picture in the classroom. They do so

because they, or their teacher, or both, are convinced that reacting to this particular motion picture will change attitudes, or increase information, or perfect some skill in a relatively efficient manner.

This statement of the role of instructional materials has interesting implications. The most important is that teaching materials are a means to an end. The end is some kind of learning or some kind of change in pupil behavior. The first decision a teacher—or a teacher and her pupils—must make is to identify the attitudes or the understandings or the skills which are to be learned. Until this is done, a wise choice among possible instructional materials is not possible.

Various kinds of instructional materials can be classified in terms of their concreteness or abstractness. Speaking generally, most of us make too little use of concrete teaching materials. Probably the best way for a boy to learn about a farm horse would be for him to spend some time doing farm work requiring a horse. If there were a good teacher around, the boy would learn faster. The materials of instruction in this situation would be exceedingly concrete and realistic—the horse, barn, hay, harness, wagon, corn, straw, water trough, and so on. A somewhat less concrete and realistic experience would involve spending some time on a farm watching a horse at work. Again, a good teacher would make this learning experience more beneficial. Moving still further away from concreteness and reality, the boy might be taught about a farm horse from models, or from moving pictures, or from still pictures, or from spoken or printed words alone.

### Varied Tools for Varied Learning

Whatever boys and girls learn depends to a large extent on the kinds of instructional materials that are used. Learning will improve if teaching materials are improved. Everyone admits this. Before there can be much improvement in the quality of instructional materials, as well as the utilization of these materials, a number of important issues must be met and coped with. *One of these issues involves helping teachers to appreciate the gains that result when a variety of instructional materials are used.* A serious weakness of American education, at all levels, is our over-dependence on the textbook, or at least our over-dependence on instruction that is entirely verbal. The only reason this over-dependence upon verbal instruction is bad is that we know that teachers cannot teach many of the things they want to teach if they use words alone. Certain lessons *require* various kinds of instructional materials. It is extremely unlikely, for example, that any child will *understand* the meaning of latitude and longitude without working with a globe.

The only sensible test of the adequacy of the instructional materials being used is the adequacy of the pupils' learning. Even those teachers who use verbal materials most of the time claim to be working toward objectives which, when they think about it, they realize cannot be achieved by verbal materials alone. But still the only way to find out whether the materials being used in a curriculum are adequate is to find out if the objectives of the curriculum are being achieved. If they are not being achieved, a wholesome measure of skepticism regarding the worth

of the materials is justified. Every vital in-service training program aimed at the improvement of instruction results in extending the variety of teaching materials used. Teachers learn that verbal materials alone do not result in adequate pupil learning.

#### **Opportunities to Examine and Evaluate**

Another important issue that must be coped with before there will be much improvement in instructional materials is implied in the question: *What can be done to help busy teachers keep informed about available new materials?* Techniques must be developed that will make it easy and convenient and pleasant for teachers to see new textbooks, examine new films and recordings, hear radio programs, study new charts and graphs, globes, maps, and still pictures. Not only must an opportunity be provided for seeing these materials that are coming out in increasing volume, but techniques must be developed that will help teachers appraise these materials—in advance of their use.

Keeping abreast of the flood of instructional materials is a big order. In November, 1947 there were approximately 4,000 elementary and secondary textbooks in print. During 1947, 1,000 different books of children's literature that had some pertinence to the school curriculum were published. In addition, over 260 films were made expressly for the classroom, and a very large number of slides, slidefilms, graphs, charts, maps, and transcriptions were produced by scores of producers.

#### **Tools for Specific Needs**

A third important issue having to do with better instructional materials can

be stated: *What can be done to provide teachers with instructional materials that are sorely needed but are not now available?* Maurice Seay of the University of Kentucky has described instructional materials in terms of three levels. On one level are those materials that can be used to some advantage all over the country by all kinds of boys and girls. These materials are those produced most enthusiastically by commercial companies. Much good material is available on this level. Producers of instructional materials spend a great deal of time examining courses of study and published curriculums in order to learn what publishing or producing ventures are most apt to succeed commercially.

On Mr. Seay's second level are those materials that are specifically appropriate to some more limited geographical area such as a state or a region like TVA. Materials on this level cannot be sold in such vast quantities—consequently commercial companies are less interested in producing them. Frequently, however, this kind of material is the very sort that comes close to the specific needs of boys and girls. An illustration of an agency producing such "regional" material is the *Southern Educational Film Production Service* located at the University of Georgia.

On the third level are instructional materials that are appropriate to a very limited geographic area such as a county or a city. These materials must be produced on the local level. Producing them takes a great deal of time. It can be done, however, creatively and fruitfully by teachers under the direction of supervisors and subject-matter experts. There is in existence a large quantity of such "locally produced" in-

structional material—bulletins, pictures, maps, graphs, charts, and in some cases, unusually interesting silent motion pictures.

Materials that are produced locally are rarely as slick and attractive as the materials produced by commercial companies. It is interesting, though, to note that materials which are close to the needs of children are not judged in quite the same way as are other kinds of teaching materials. Boys and girls who are interested in learning how to feed hogs acorns that fall from scrub oaks on the side of mountains in their vicinity seem to benefit greatly from reading how this can be done in a mimeographed bulletin with somewhat less than professional illustrations.

#### Purposeful Budget Increase

A fourth instructional material issue involves *increasing the public expenditures for teaching materials*. At present we spend roughly one percent of our educational revenue for instructional materials of all sorts. Even this expenditure competes with the need for increased teachers' salaries and more adequate school buildings. There are two ways to increase the amount of money spent for instructional materials. One involves increasing the total school budget, and the other involves shifting items within the budget. Both methods are practiced. The former is better during a period when larger gross amounts for school expenditures are possible. We are now in such a period.

In the great majority of schools very little money is spent for instructional materials other than texts. A study conducted in 1946 by the NEA reported the annual per pupil expenditures for audio-visual materials, apparatus, and services as given below.

Even these figures are probably too high as national averages because many of the cities circularized did not respond to the questionnaire. They probably represented the very minimum of expenditure.

#### Utilization Based on Knowledge

A fifth important instructional material issue has to do with *improving utilization*. It is an interesting fact that superior utilization methods are much the same regardless of the type of material used. In order for utilization to be good, teachers must know what changes in pupil behavior are to be brought about. They must know, too, what materials are available. They must be given an opportunity to examine materials from which they will choose those most valuable. They must be able to get the material when they want it, and use it under optimum circumstances. In order for these "musts" to become actual practice, pre-service and/or in-service education are necessary.

Take a look at your own school situation in regard to these imperatives in instructional materials. Awareness of needs and efforts to meet them will be moves ahead in the betterment of each child's learning environment.

58 cities over 100,000 in population .....	\$ .25 per pupil
110 cities between 100,000 and 30,000 pop. ....	.39 per pupil
224 cities between 30,000 and 10,000 pop. ....	.40 per pupil

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