



# The IMC: A Systematic Approach

HENRY C. RUARK

WHAT IS AN IMC (instructional materials center)? This question must be answered before any systematic approach to development can be applied. It has been said that the greatest contribution of our age is the invention of invention. One has only to look around to see how the process of invention is applied: first one determines what is wanted, how it must work, and what it takes to make it work that way—then one simply puts together the pieces. The process works for the simplest gadgets and for the most complex combinations of technology.

One can translate this method for inventing into “systems” language: every system must have *purpose, process* and *content*.<sup>1</sup> The *content* is made up of the components put together for the system; the components in turn are chosen to carry out the particular *processes* required of the system to meet its *purposes*.

It is easy to see that purpose is the controlling and guiding element in any system. The choice and definition of purpose will in turn define and select the components of the system and determine not only what but how the processes to be achieved are carried out.

In thinking about any system one must begin by asking: “What is it for?” and then supply an answer in depth and full detail. But thinking and planning systematically do not stop with defining the answer—they also demand that we define how we measure our success in reaching that answer, just as a performance objective not only names what a child is doing when he shows that he has learned, but it also provides a criterion against which we can measure how well he is doing it, and under what conditions.

To state this in another way, we must provide ways of measuring what the system does against the purpose for which it was created. And, what is more, since this is first and foremost a process or ongoing, continuous system, we must provide this evaluation in the form

Henry C. Ruark is the Editor of *Educational Screen & AV Guide*, Chicago, and the Information Officer for Portland Community College.

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of a feedback loop—information coming from operations and their effects which can be applied to change those same operations in full flight, and thus make them more effective and more efficient.

So what is new? Do not all IMC operations take these points into account? Are they not all “comprehensive,” “integrated,” and “student centered”? No, they are not. Not all operate on some of the basic principles learned through many years of contact with learners of all ages, kinds, conditions, and types. Not all manage successfully to wipe out artificial and limiting distinctions between print and film, film and electronics, electronics and class-and-teacher. Not all meet the major needs of the students and teachers they serve; they offer partial services when systematic management would make possible a complete complement of those elements demanded today by the learning process.

Back to the question: What is an IMC? Certain guiding principles can be abstracted from long experience to aid us in answering questions which determine the principles and structure of the IMC as an operational system:

- 1) The wide variety of instructional materials and modes now available make it mandatory that teachers be selective. Learning goals should determine both choice and functional use of instructional materials.

- 2) Many materials and media, both printed and nonprinted, when used in combination, greatly increase the probability of achieving desired learning goals.

- 3) The instructional process can be greatly strengthened, enriched and improved by using extensively materials which are, or can be, made truly available.

- 4) The increasing number of instructional materials and techniques for both group and individual learning experiences offers many new possibilities for creativity and experimentation in teaching and learning.

- 5) Teachers need to achieve greater proficiency in their abilities to evaluate, select and use various instructional materials. Increased teacher skills and performance must depend not only on stronger pre- and inservice education, but also on proper logistics and personnel support.

There can be little disagreement with these principles; what is necessary now is to translate the principles into working functions, which in turn can become the components of the IMC system.

Again, long experience has indicated that for the IMC truly to be a process system which can serve the learner in the ways demanded by these principles, four functions must be in operation:

- 1) There must be a pool of basic and specialized instructional materials, readily and immediately available for learner and teacher use.
- 2) Teacher and learner experiences must be supplied continuously, leading to improved selection, broad utilization, and extensive and intensive application of learning materials.
- 3) Supporting services, manned by sufficient competent personnel, must be supplied for effective maintenance, distribution and application.
- 4) Local production of unique materials demanded for effective and efficient instruction must be carried on.

There is a cartoon going the rounds of many IMCs these days; it shows a wise old owl perched on a limb, saying: "Technology is the answer . . . but what was the question?" Let us ask our "system question" again, and see if we are closer to answering it now. What is an IMC? An IMC is that system of functions and processes which helps the learner to learn, and the teacher to teach, through provision of learning materials of any type as demanded.

How does one measure the success of any IMC? Since the IMC is a process system, one can take readings throughout the process; one can get a number representing *how many* of any facet of the process for any specified time, i.e., circulation of filmstrips, withdrawals of books, requests for production of any one of many types of materials, or even the number in and out at the door. These numbers of each of the above will mean very little, however, unless applied against a rising curve of the number of learners learning and of teachers changing and growing and using more materials effectively. The numbers at least can, however, indicate the growth and development of services.

Since the IMC is a system, one can incorporate into it multiple opportunities for skillful and expert observation of results which are automatically reported back to management. One can build in not only a teacher report on the number of uses, but also on the effectiveness of the materials and services. With a little ingenuity, it is even possible to achieve some direct relationships between an individual's class scores on "standard" educational measures and his use of the IMC.

But the IMC is not a system of and by itself; it is really a subsystem within the larger system of education. It is within this larger system that the IMC system should be evaluated.

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In the current context of educational change and with the increasingly rapid incorporation of innovative practices, the system's characteristic of a readiness to change, and to plan for such change, becomes increasingly important for the IMC. Those who would organize, establish and manage an IMC today must expect, accept, and take steps to develop readiness for change and the flexibility to achieve it through a plan built from an analysis of needs of the future as well as from an extension of a currently operative system.

Again and again one must ask: What is the IMC? What should it be? And the answer, again and again, will guide one first to see what the new requirements of the learner and the teacher may be, then to define what will fill those requirements, and finally how to organize them to get the job done.

### *Reference*

1. Adapted freely from: Banathy, Bela H. *Instructional Systems*. Palo Alto, Calif., Fearon Publishers, 1968.

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