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AUTHOR Biggy, Virginia M.
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ABSTRACT

A proposal for the creation of a series of instructional television programs has been developed by the Agency for Instructional Television. The programs will focus upon essential skills in the areas of communications, computation, inquiry, and analysis and evaluation and will be organized at three levels for children of kindergarten age through eight years, eight through ten, and ten through 12. Instruction will emphasize increasingly difficult uses of these skills and stress their continuous practical application in realistic situations. Each program will be brief and based upon sound educational principles relating to instructional design, pre- and post-assessment, evaluation, reinforcement, feedback, and application. Specialists drawn from among teachers, educational researchers, psychologists and television professionals will comprise the production team and insure that the programs are faithful to these basic instructional precepts. (Author/PB)

This report had its origin in September 1973 when the Agency for Instructional Television asked all American and Canadian chief school officers for help in the identification of needed program projects. In the following month persons from twenty-nine states and seven provinces came together at four regional meetings conducted by AIT. Participants recommended that AIT explore cooperative projects in essential learning skills, metric education and life coping skills.

The Agency for Instructional Television seeks to strengthen education in the United States and Canada through television and other technologies. Its basic function is the development of significant and effective school television programming, primarily through the pooling of state and provincial resources.

Acquiring Skills Essential to Learning

Prepared by
Virginia M. Biggy
Professor of Education
University of Lowell
Lowell, Massachusetts

April 1974

Two sets of reaction forms are attached to the inside back cover. Please return one completed set to the Agency for Instructional Television, Box A, Bloomington, Indiana 47401.

ABSTRACT

The Agency for Instructional Television proposes to develop a curriculum design and a plan for instruction by television that will provide a variety of strategies and techniques for acquiring essential skills.

This project will be organized in three levels: for children of kindergarten age through seven years, for children from eight to ten and for children from ten through twelve. Instruction at each level will introduce, reinforce, and review essential skills. Each level will emphasize increasingly difficult applications of these skills, adhering in all cases to two basic points, - (1) skills, whatever they are, in isolation will have little value, and (2) the more practically and realistically and the more often a skill is properly applied by the student, the more likely it will actually belong to him and be his to use for a lifetime.

The instructional television programs will be realistic and short. They will take full advantage of the medium to present, in a variety of ways, theoretically sound instruction. They will be for the student -- not for a hidden adult

audience. They will center around people and real happenings. They will have as a base, solid instructional design, provisions for pre- and post-assessment, provisions for immediate evaluation, reinforcement, and application.

They will constitute the best instruction in essential skills that it is possible to design. Teachers will field test each segment and will have much to say about content and presentation. Researchers, theoreticians, psychologists, and teachers will develop the design. Professionals in television will develop techniques for presentation. Specialists in evaluation will design a master plan of feedback that will have a direct bearing on every segment produced.

Essential skills are usually discussed in the framework of goals of education. Proper instruction in the basic skills is identified as a major objective of the school, and a high degree of achievement in the basic skills is not only desired but expected by the public as the chief way in which a student will become capable of competing in the market place.

Essential skills are:

Communication (Speaking, Listening, Reading, Writing)
Computation and Measurement
Inquiry (Study Skills)
Analysis and Evaluation (Critical Thinking)

Essential is defined as basic or indispensable. Skill is defined as competence or excellence in performance. "Acquire"

suggests the students' own responsibility -- "gaining information through one's own actions or efforts."

"Acquire" is the key word in the philosophical approach suggested in this report.

ACQUIRING SKILLS ESSENTIAL TO LEARNING

Table of Contents

I. WHAT ARE THE SKILLS ESSENTIAL TO LEARNING?

Though there is hardly a reference to the function of the elementary school that does not refer in some way to the task of teaching "basic skills," seldom can an actual definition of those basic skills be found. Usually the "basics" are identified as communication and computation skills and the purpose of instruction in the basics is to make the student capable of expressing himself properly, earning his living, and maintaining a capacity to function in the everyday activities of buying and selling, sharing his opinions, and making decisions.

In the course of events, the elementary school curriculum, while always concerned with the fundamental skills, has expanded its offerings, and current professional literature seems more concerned with the expanded offerings, the application of the skills, and the social purposes of the elementary school than with identifying the basic skills. Extended searches indicate that a composite of "basic skills" is not readily available. Thus, to answer the question "What are the essential skills to learning?" it becomes necessary to face the question directly.

The word "essential" means absolutely necessary or indispensable, and the word "skill" means competence, excellence in performance. It is important, therefore, to determine what indispensable competencies a student needs to "acquire knowledge via systematic study."

To do this it is necessary to begin at the beginning: Just what skills in communication and computation will permit the student to function on his own? What skills will be necessary to locate new information and to manage the information that is available? In what order do these skills occur -- or is there an order? What are the absolute "musts"? Which skills might properly be left out of the skeleton of "essentials"?

When one is faced with the task of developing a basic or fundamental position, it is important to have a frame of reference -- a base -- a philosophy -- a strong feeling that underlying the basic position there are certain "givens" that must hold as the underpinnings.

The following statements seem to establish appropriate guidelines for consideration of essential skills because they identify what the ultimate goals of education ought to be and because without such commitments, no amount of skill instruction, essential or otherwise, would accrue to the benefit of society.

In order to humanize the educational process, educational systems must organize experiences that will result in persons believing in themselves, understanding mistakes, thinking well of others and developing the realization that their own well-being depends upon the well-being of others.

Illinois Goals of Education

There are personal-social priorities that ought to underlie all instruction, particularly instruction identified as "essential." They are:

To have a positive image of one's self.

To recognize and respect the dignity and value of every human being.

To be thoughtful and sincere in every encounter with human beings.

To recognize and respect the intellectual, physical, social, and emotional growth of an individual.

To respect a point of view which does not have your support.

And there are, of course, priorities in essential skills. A statement concerning those priorities is made in the State of Florida Goals for Education:

All children shall acquire to the extent of their physical, mental and emotional capacities, a mastery of the basic skills required to obtain and express ideas through effective use of words, numbers and other symbols.

All children shall achieve a working knowledge of writing, reading, speaking and arithmetic.

All students shall develop and use skills in the logical processes of research, analysis, evaluation, problem solving and critical thinking.

All students shall develop competence in and motivation for continuing self-evaluation, self-instruction and adaptation to a changing environment.

And finally, properly taught, essential skills ought to provide the following abilities as identified by the State of Michigan Goals of Education:

Comprehend ideas through reading and listening
Communicate ideas through speaking and writing
Handle mathematical operations and concepts
Apply rational intellectual processes to the identification, consideration and solution of problems.

For the purpose of this preliminary report and attendant discussions about priorities in skills instruction, the position is taken that <u>essential skills</u> are:

Communication (Speaking, Listening, Reading, Writing)
Computation and Measurement
Inquiry (Study Skills)
Analysis and Evaluation (Critical Thinking)

They are the very fundamentals that are necessary to permit a student to "go it alone" -- and to operate as an individual.

The following description of essential skills considers the components of each of the above areas. The skill judged most fundamental in each area appears first in the listing, and each of the other items is presented in the order in which most

students ought to "acquire" these abilities. There is a developmental sequence established under each heading, and yet it is quite possible that that sequence could, with proper guidance for the student, be adjusted and realigned. It is also possible, indeed desirable, that each of these "abilities" be developed in direct relation one to the other, both within the specific rubric, as well as across the board between Communication, Computation, Inquiry and Analysis and Evaluation. In other words, as a base line for consideration of essential skills, the statement must be made that skills in isolation -- abilities in isolation -- serve very little purpose. The value of each skill increases immediately when it is related to another. The composite acquisition of these skills gives the student evidence that he can do something with the knowledge he has acquired, but even more important, it provides the learner with a solid feeling of being in control, of having a handle on his world.

ESSENTIAL SKILLS

COMMUNICATION

Listening - Auditory Reception

Ability to listen attentively
(1) to follow directions
(2) to acquire and retain information
(3) to ask questions
(4) to draw inferences
(5) to analyze, react and respond to what has been heard.

Ability to recognize and implement the role of a "good listener."

Speaking

Ability to have something of value to say.

Ability to speak clearly and moderately.

Ability to use proper tone and inflection to make the meaning clear.

Ability to organize information, thoughts, and ideas and then to "say it well."

Ability to use precise language to avoid misconceptions.

Ability to use appropriate vocabulary, syntax, form, and morphology.

Ability to participate easily in a conversation, recognizing that others, too, have something to say.

Ability to speak effectively in a variety of social situations.

Acquire skill in non-verbal communication.

Reading

Ability to identify through seeing and hearing and to use properly the fundamentals of the language -- the alphabet of vowels and consonants; consonant blends, digraphs, suffixes, prefixes, plurals, and other structural adjustments, syllabication, roots and patterns of words, homonyms and synonyms.

Ability to recognize the order of words in a sentence (syntax) and to understand why they are in that order.

Ability to recognize that the order of the letters in a word is what makes the word intelligible. (This is a spelling skill, also.)

Ability to recognize that words that are read are formed in exactly the same way as they are written.

Ability to read reasonably rapidly and with comprehension -- to understand the words, the interrelationship of ideas, to identify the author's bias, to select the important information for retention.

Ability to read as a source of personal enjoyment.

Ability to read to locate information.

Ability to read aloud to provide pleasure for others -- using preferred pronunciation and intonation.

Ability to appreciate and enjoy written material of quality -- poetry, drama, the various forms of literature.

Writing

Ability to form letters efficiently and legibly.

Ability to write rapidly and legibly enough to make the writing "tool" satisfactory and useful.

Ability to use precise vocabulary.

(Writing continued)

Ability to use proper capitalization, punctuation, grammar, and word forms.

Ability to recognize the importance of word order for clarity.

Ability to recognize and to use letters (graphemes) in the proper order to constitute correct spelling.

Ability to master spelling principles and therefore the power to spell known and unknown words correctly.

Ability to develop a spelling conscience.

Ability to report concisely and accurately.

Ability to write -- with knowledge of the purpose, with the proper form, and with clarity -- a letter of application, a letter to order equipment or seek information, a friendly letter, a letter of request, a letter of thanks.

Ability to write a message clearly and accurately.

Ability to use clear, dynamic, forceful, imaginative language.

Ability to appreciate the beauty of the language itself.

Ability to express one's intimate thoughts, feelings, and imaginations in a unique manner.

COMPUTATION AND MEASUREMENT

Computation

Ability to identify numerals.

Ability to use properly cardinal and ordinal numbers.

Ability to understand and use selected language and symbols of mathematics (larger, smaller, inside, outside, under, over, above, below, etc.).

Ability to identify operational signs and words (+plus; -minus; x multiply; ÷ divide).

Ability to understand place value and principle of base 10.

Ability to compute with reasonable speed and accuracy in each of the four operations, using whole numbers.

Ability to recognize the interrelationships of the operations with numbers.

Ability to understand the commutative, associative, and distributive principles and identities of zero and one.

Ability to recognize the value of estimation and to increase the proper use of it as an arithmetic tool.

Ability to translate a verbal problem into a mathematical sentence/equation.

Ability to understand and compute with rational numbers (fractions, ratios, decimals, per cent).

Measurement

Ability to recognize geometric forms and their properties (circle, square, triangle, angle, rectangle, etc.).

Ability to know and understand calendar time (day, week, month, year, century).

(Measurement continued)

Ability to write the date properly.

Ability to tell the time of day correctly.

Ability to read and use a time line properly.

Ability to know monetary designations (penny, nickel, dime, quarter, half dollar, dollar, five, ten, twenty).

Ability to recognize and use the common labels of metric measurement (liquid, dry, linear, weight, temperature).

INQUIRY, ANALYSIS, EVALUATION

Study and Reference Skills

Ability to follow directions.

Ability to prepare clear, concise directions.

Ability to understand the order and organization of the dictionary.

Ability to develop a personal dictionary.

Ability to use a dictionary efficiently: guide words, pronunciation keys, multiple meanings, cross references.

Ability to use an encyclopedia.

Ability to locate title, author, illustrator, publisher, date of publication, and copyright in a book or pamphlet.

Ability to locate and use the preface, table of contents, index, list of maps and illustrations, bibliography, and appendix of a book.

Ability to use properly and efficiently the card catalogue in the library.

Ability to use the Readers Guide to Periodic Literature.

Ability to isolate the problem to be studied.

Ability to determine the essential information necessary to solve the problem.

Ability to recognize underlying assumptions about the problem.

(Study and reference skills continued)

Ability to use a variety of sources to locate information: books, magazines, newspapers, tapes.

Ability to interview to obtain information.

Ability to take notes efficiently from reading, listening, interviewing.

Ability to identify the main idea of a paragraph or report.

Ability to identify supporting details.

Ability to identify specialized information: dates, directions, etc.

Ability to select and evaluate information located about the problem.

Ability to compare and combine information obtained from various sources.

Reporting Skills and Analysis

Ability to develop a rational outline.

Ability to classify information under proper headings or in chronological order.

Ability to organize the information for presentation orally or in writing.

Ability to prepare a bibliography in proper form.

Ability to prepare a table of contents in proper form.

Ability to use films and other media to locate and/or to provide information.

Ability to present a report in chart or graphic form as well as or in lieu of a narrative.

Critical Thinking and Evaluation

Ability to select information to support a generalization or conclusion.

Ability to select statements to prove a point.

Ability to determine whether selected statements represent fact, opinion, or propaganda devices to dissuade or convince, stereotypes, cliches.

Ability to identify inconsistencies, anachronisms, faulty reasoning.

Ability to recognize bias and emotional factors in printed material.

II. BACKGROUND ON BASICS

It is a matter of historical record that instruction in basic skills has been the essential responsibility of the school ever since the Greeks and Romans established schools (350-300 B.C.) in which the "basic skills" would be taught.

Manuscripts on the history of education record the early activities of schools, the philosophical orientation of the founders of the schools, and eventually the type of instruction for which the school had been organized. In every case, though there were many religious purposes of the early schools, there were also stated concerns with the teaching of reading, writing, counting, declamation, chanting, and preparation for the role of a citizen.

In Europe and then in the United States, the first instruction came through the home for the purpose of developing firmly the religious beliefs. To do this, a student had to be able to read the Bible, and those who were taught to read were those whose parents could read. For many years, education was regarded as a privilege and was thought to be the business of the church rather than the state. Education beyond the slimmest rudiments was reserved for a small minority, most of whom expected to make their life's work in the church, to run

the family estate, or engage in trade. Middle class parents apprenticed their sons to tradesmen and businessmen who could school the sons in the aspects of reading, writing, mathematics, Latin, and trading that were essential for success in business or in government.

The Puritans were concerned with the education of a small and select number of young men competent to manage and further the affairs of the theocracy, and the avenues of "schooling" were available to those young men only. Eventually, the education of the "common child" came to be of some concern -- mostly religious. The pastor of the local church prodded to be certain that children were receiving schooling in faith and morals and, whenever possible, in reading. The "teachers" were the older generation members who, unable to take as much responsibility for farming and for business, could take on the "education" task. But the similarity of opportunity and the quality of instruction were exceptionally uneven. "Dame" schools were next, with well-intentioned women taking on the education, both in domestic areas as well as in morals, religion, spelling, and counting, of several of their own children and those of the neighbors on a regular, daily basis. Girls were given instruction in "Dame" schools, but seldom were admitted to grammar schools. Grammar schools were reserved for those males of the community who would be the leaders in politics, religion, and trade in a very short time.

In 1647, in the Massachusetts Bay Colony, a law requiring every child to have some education was passed, precipitated by the laxity that had become apparent when mothers and fathers were just too busy with the economic activities to provide instruction for their offspring.

It was not until the "schools" established by law and operated by a master paid for that purpose got into full swing that any substantial similarity in instruction occurred and that the students might be expected to know the same information. Reading, writing, and religion continued to be the order of the day, taught usually by rote, with the student memorizing the teacher's presentation and repeating it when called upon. In 1789, reasonable behavior, spelling, grammar, and English usage were added to the curriculum. In 1857 the Commonwealth of Massachusetts added a knowledge of geography.

As the small schools inhabited by students of all ages and at all levels of learning became crowded, it was necessary to establish some other type of organization. Furthermore, it was necessary to make decisions about attendance that heretofore had been haphazard. When more schools were established and more order was introduced, more materials became available, more students went to school, and levels of accomplishment were established as a guide to the several teachers now employed.

From a single student tutored by his parents or apprenticed to a specialist, the educative process grew to involve rooms full of children who were more or less the same age, and able, broadly, to cope with more or less the same type and amount of "education."

Always the instruction included reading, writing, spelling, and arithmetic -- long ago determined to be the "basics" required for success in religion or in statesmanship, and now acknowledged to be necessary for success in many more fields.

In what seems to be a slow, essentially religious-oriented development, schools grew to be the source of information for most of the young, and to be the source of independence for many. Long before the materials and techniques were developed to make the instruction of more than one or two children somewhat efficient and productive, the school was expected to provide the instruction anyway.

For many years, instruction was given without recourse to sequence or order. Most instruction in skills was in isolation and dreadfully boring. And it continued to be that way as attempts were made to organize the materials to be learned.

The Progressive education era provided an opportunity to experiment with actually applying skills that had been taught through some real situations. Some of the attempts in that direction continue to be the object of criticism for their apparent lack of order or their seemingly slovenly efforts at "learning by doing." Still, much of what we know now about reviewing and reinforcing skills instruction by applying those skills in other academic areas, and indeed in everyday activities, came from those days of progressive education. Over the last seven years we have learned a number of things, not just from the psychology of learning but also by mounting sizeable attempts to systematize the information to be presented to a child and by identifying, whenever possible, an appropriate sequence in this presentation. We have even learned a fair amount about how very important it is for the learner to recognize that he really is the learner, and that the whole point of instruction is to free him so that he can handle his own affairs: to provide for him a handle on his own world through efficient and pertinent instruction in reading, writing, and the other "basics."

Throughout the development of civilization, both European and American, schools have continued to have assigned to them the task of instruction in basic skills, though frequently

what actually constitutes those basic skills is not described. A review of the literature on the history of education and of discussions of the social role of the school reveals that a major assumption has been made about elementary education in public and private schools, and that this assumption has been sustained over a period of two thousand years: basic skills instruction is the essential activity of elementary schools.

III. WHAT IS THE STATUS OF INSTRUCTION IN ESSENTIAL SKILLS?

One of the chief sources of unrest in communities in the United States over a long period of time has been a general public feeling that the schools have failed to teach those "basic skills." In what seems to be a cyclical concern, schools are exhorted to teach basic skills and critics predict the demise of educated men if such basic work is not done. Hyman Rickover and Mortimer Smith have regularly reminded us that solid, sensible education is concerned with the "basics" of reading, writing, spelling, arithmetic, and making oneself understood both in speech and in writing.

For many years, groups of parents, educators, and academicians have banded together to bring pressure to bear on public and private schools to "return to the basics." They have identified themselves as "conservatives" and they seek to line up against those who are regarded as "liberals," "progressives," or "radicals." Such terminology is nonsensical but it has served to heighten a schism in many communities, in many school systems, among many professional educators and indeed within the framework of the instruction for prospective teachers.

At teachers' conventions and in textbooks, professional magazines and the public press, there has been much discussion about the merit of skills instruction. Though often research and experience have seemingly put to rest the basis for argument, the battles continue to rage in one place or another over new and old mathematics, manuscript and cursive handwriting, sight vocabulary techniques and those of decoding and encoding.

Recent studies of the quality of education in schools with children who have few economic and cultural advantages cite the failure of the school to provide adequate instruction in "basic skills." Indeed, the lack of adequate instruction has frequently been identified as chief among the reasons why certain groups find themselves without the employment and economic opportunities to produce the "good life."

In the late 1960's and early 1970's the availability of massive amounts of government funds to develop innovative programs for the purpose of upgrading education, particularly in disadvantaged areas, provided a further opportunity to lay claim to the importance of proper instruction in the "basic skills." Demands of the United States Office of Education for some measurement of achievement began a surge of attempts to assess programs in instruction. Simultaneously, the business

community and the military were suggesting new and complex ways in which to indicate the worth of the product for the effort and money expended. In the framework of business and military discussion about accountability, and with impetus from the Department of Health, Education and Welfare for an accurate reporting of results received in proportion to money granted, many State Departments of Education in the United States undertook to establish studies of "the goals of the school" as the first phase of serious concern with accountability.

Nearly every state has reported in book form the steps through which staff members went, either to prepare lists of likely goals for citizen reaction or to organize citizen groups state-wide to establish the goals of the educational enterprise. Over a period of three years, each state seems to have been able to produce a statement of goals for the schools of that state. Taken as a whole, there is, of course, much agreement. Almost every document refers to a goal of prime importance, frequently first or second in a list of ten or twenty -- "instruction in basic communication skills." But, any descriptive material on what are "basic communication skills" is not often found.

Recent surveys of parents and educators on goals and priorities of education consistently reveal that two areas are the objects of greatest concern -- the development of fundamental skills and the development of a strong self-concept and the capacity to function as an individual.

A study of these recent materials brings the realization that schools in the United States are expected to be responsible for "basic skills," that the argument over whether they can be responsible has long ago been dismissed. A general assumption pervades that "basic" or "fundamental" skills will be taught, that introduction of them will occur simulateneously with the student's registration for school, and that the results of the instruction in those skills had better be solid.

In 1974 we find ourselves in an interesting position. Basic and fundamental skills, frequently without definition, are enjoying a new popularity. They are being identified as something to which we should get back. Skill in these "basics" continues to be considered the chief difference between success and failure in school, in a community, in the job market. The basics are being referred to as the things we lost in open education, or in other organizational schemes in elementary schools where children were given the opportunity to assume some responsibility for what they learned.

What needs to be said is that instruction in these basics has always been offered, is always available, and will continue to be, but that without a doubt the job can be done better. One of the real problems is that we have many more students to whom we must teach the fundamentals. Fortunately, we have learned that there is no single way in which all people acquire information and skill, nor is there any single method of providing instruction which would guarantee that each learner actually learned. Such knowledge suggests that we must prepare an array of strategic positions, from which to move forward with students who require more of one approach to instruction than to another. What we have reaffirmed from the immersion into discussions of "learning disabilities" is precisely that some students learn skills in a different way than do others. Some require much more motor reinforcement, others require very much more auditory work, while others require a rote base before moving into concept development in arithmetic.

There is another basic problem. In an effort to assure critics that the school is indeed accountable, substantial progress toward giving students an opportunity to apply the skills pertinent to one subject to another (and thereby seeing the relationship between the two) has been sacrificed in favor of establishing times during the day when plain, straightforward

teaching of arithmetic, for example, is being done and can be observed. The instruction is given not be way of a miniature grocery store, cash registers, etc., within the classroom, but rather through head-on, direct teaching of the very same type for every single child. Accountability should hardly make it necessary for schools to revert to the instructional techniques of thirty-five years ago.

Though we are caught now in a period when talk about basic or essential skills is popular again, the world in which students live, and will live, requires them to know far more than basic skill information. We have been accumulating evidence that total immersion in learning and continued opportunities for application of skills are far superior approaches to that of concentrating on individual skills. There should be no reason to discard this knowledge. As in every educational issue, there ought to be a way to compromise -- to make the most of all we know about skills instruction and to put that knowledge in the framework of rich and productive experience for children.

No one questions the importance of being able to express one's self both in speaking and in writing in such a manner that there is no doubt about the message being conveyed. Nor does anyone question the value of being able to compute rapidly

enough to avoid being overcharged or underpaid. Hardly a person would disagree that to be able to spell well is important and that to write legibly is a deterrent to error and misconception.

To read a map, to recognize propaganda, to analyze advertisements, to locate information one wants or needs -- these also are essential skills. We have known about them for a long time, and we have designed specific materials to teach them, to review them, and to reapply them. Why is it, then, that we continue to be dissatisfied with the results? Is it because the body of "essential skills" has grown to such proportions that mastery of them is a lifetime task? Could it be that the relevance of the instruction in these skills escapes the student and he sees no point in mastering them? Could it mean that the ability to write legibly or to compute is, after all, unnecessary because there are always typewriters and good secretaries and because calculators can solve the problems of subtraction and division in a matter of seconds? Perhaps an essential skill is to learn to punch a calculator and not really be concerned with how it delivers its response. But then, how would we know what to ask the calculator to do or ask the typewriter to say?

Could it be that the school has just too many tasks and that those of a more complex nature seem to get the attention? Or could it be that our faculties are so conscious of producing positive results on the standardized tests that what they really know about teaching skills is put aside in favor of heavy concentration on items that are sure to be tested? Perhaps it is that our students have many more stimulating things to think about and that the hard core work of learning skills seems, by comparison, dull and dreary.

The concept that instruction in the "skills" must be done in isolation was long ago dismissed as unproductive. Theories of learning, in the majority, hold that knowledge that is organized and related is better learned and retained than knowledge that is specific and isolated. Curricula organized around scope and sequence are designed to provide the "organization" and the order that seem to be necessary for most people to learn. There are always hidden agenda in instructional materials -- a master plan of what ought to be introduced first, reviewed, and reapplied. Sometimes the sequence and the application are too subtle to be identified by the learner; he doesn't recognize that he <u>is</u> the learner and that he does have command of the information. Sometimes

the provisions for application are artificial and seem unreal, and the learner is reasonably sure that he will never have an opportunity to use this information and that no one else will use it either. What the student needs is evidence that he can do something with the knowledge he has acquired, that he can apply the information to new situations and problems. He expects to be able to select an appropriate technique for attacking a new problem and to use his information (facts and concepts) to solve it. The capacity to do this is frequently called critical thinking, but regardless of its name, it provides the learner with a solid feeling of being in control, of having a handle on his world, of being able to solve a problem.

Though curriculum specialists have labored long to incorporate that opportunity for satisfaction into the procedures they design for providing instruction in essential skills, there is much more to be done.

Perhaps in our constant struggle for freedom and equality, we must always be discontent and dissatisfied. Perhaps if that were not the case, we would lack the impetus to look for new ways to do things and for better techniques.

In everything there is room for improvement, and instruction in essential skills in the elementary school can claim no exemption.

IV. A MAJOR TELEVISION EFFORT: "ACQUIRING SKILLS ESSENTIAL TO LEARNING"

A case for a different approach to instruction in the skills essential to learning.

Why Is Instruction in Essential Skills So Important?

To carry out one's responsibility as a citizen, not to mention to serve one's own purposes, it is necessary to talk to others, to record information, to process recorded data (reading and analyzing), to search for new information, and to organize, classify, and record some of the information that bombards each individual. To earn one's living, the same set of tasks is necessary, and to function as an individual capable of making decisions, expressing opinions, traveling, purchasing, and acquiring new information, it is necessary to be competent in the essential tools of communication and analysis.

Some persons acquire these skills through their own experience and with very little formal instruction, but most require some sequential instruction, some reinforcement, some review, and some assistance in applying the skills to other areas of endeavor.

The school has regularly been charged with the responsibility of providing the instruction and, whenever possible, in some ordered fashion to make the learning more efficient. The school is also expected to provide this instruction, review, and assistance with application, to everyone who enters the school, whether motivated or not, whether capable of acquiring the information quickly or slowly. The public expects the school to do this efficiently and rather rapidly. The customary measurement of success is made in terms of the student's ability to process information whenever he is asked to do so, whether or not he has had ample instruction to do it. Seldom are "degrees" of success recognized; one either can or cannot perform when required to do so. The concept of the size and unmanageability of the task has had little consideration.

For all the years we have been at the job of skills instruction, we continue to have questions in our minds about the techniques used in instruction, and we continue to try to develop more productive and efficient methods of providing instruction in skills essential to learning. No wonder, when one considers the complexity of the task and the number of students for whom some instruction is expected, the teaching of fundamental skills is listed among the top priorities for instruction and for new considerations and approaches. Developing competencies in these skills is the largest instructional task we have.

To help with this task, the Agency for Instructional Television is investigating the development of a curriculum design and a plan for instruction through television that will provide a variety of strategies and techniques for acquiring essential skills.

Why Television?

Television is a powerful tool of instruction, capable of bringing a number of fundamental concepts to the attention of the student in a reasonably short period of time and with ample review and reinforcement. It has the capacity to blend the proper amount of visual and auditory stimulation. It is an efficient technique. It is not subject to the decrease in human energy that affects the teacher and therefore the quality of instruction. Though it may take hundreds of hours to perfect a fifteen-minute television unit, when that unit is finally available for the use of the student, it embodies in one place all of the information, all of the presentation devices, all of the associated strategies for review that are necessary to provide a complete learning experience.

Often one set of resource materials is superb but cannot be matched with a set of similar quality in another of the skills areas. The teacher, then, is left to make bridges between the materials, and frequently the instruction is

fragmented because of lack of time or of the tools to do the job. A series of television programs, on the other hand, can provide a comprehensive learning resource of uniform excellence.

Though the proper conceptualization and development of a major instructional television effort is anything but inexpensive, once that instructional design has been settled, the approaches determined, the materials developed, the evaluations of each component made and used in restructuring the content, an offering of quality and substance becomes available. And it is available to thousands of students for a fraction of the cost of other approaches and materials.

Such a series of instructional programs should meet with strong acceptance; it should provide a solid base for instruction that, in turn, should raise the level of performance of those students who have the opportunity to be actively involved with the television materials.

What School Population Will Be Served?

Formal instruction in basic skills has traditionally been the responsibility of the elementary school. The proposed television effort in skills essential to learning would be designed for elementary school children, ages five through twelve.

What Is Envisioned as the Over-all Design?

This instructional project will be organized in three levels: for children of kindergarten age through seven years, for children from eight to ten, and for children from ten through twelve. Instruction at each level will introduce, reinforce, and review essential skills. Each level will emphasize increasingly difficult applications of these skills, adhering in all cases to two basic points: (1) skills, whatever they are, in isolation, will have little value, and (2) the more practically and realistically and the more often a skill is properly applied by the student, the more likely it will actually belong to him and be his to use profitably for a lifetime.

Television units will be realistic and short (perhaps three per week, each fifteen minutes in length). They will take full advantage of the medium of television to present, in a variety of ways, theoretically sound instruction. They will be for the student -- not for a hidden adult audience. They will center around people and real happenings. They will have, as a base, solid instructional design, provision for formative and summative evaluation, and reinforcement and application.

They will constitute the best instruction in essential skills that it is possible to develop. Teachers will field test each segment and will have much to say about content and presentation. Researchers, theoreticians, psychologists and teachers will develop the design. Professionals in television will develop techniques for presentation. Specialists in evaluation will design a master plan of feedback that will have direct bearing on every segment produced.

Why Acquiring Skills Essential to Learning?

The term "acquire" means to "gain by any means, usually by one's own exertions....or, to get as one's own." As indicated earlier, one of the reasons why students fail to identify basic skills instruction as useful and necessary for them (and therefore to profit from it) is that the instruction frequently conveys the idea that the skills have no real, everyday value. Students think that it is merely the teacher who has decided that these skills are necessary. If the emphasis is on "acquiring" skills, the total design of the series will have to assume a posture of involving the student so that through his own participation he will get as his own the skills essential to learning.

How Will the Essential Skills Project Relate to Existing Instruction?

The television units of the essential skills project should carry the major responsibility for presenting the essential skills curriculum. The goal of the project is to provide instruction in skills essential to learning to each student, not just to whet his appetite or to provide enrichment material that will help to reinforce instruction offered in some other way. The purpose is to provide a solid base of instruction in skills. Other curricula materials will be used to enrich and reinforce. They will be supplemental to the project.

What Does Such a Proposal for Basic Instruction Do to the Role of the Teacher?

This project will support the teacher's central role in instruction. The teacher will be responsible for diagnosing student needs, evaluating student progress, selecting additional materials necessary for review, determining when the student has had enough or needs more practice. These have always been identified as the professional tasks of a teacher -- diagnosis and prescription. The television series will assume the major responsibility of presenting the content. All of the selection process of techniques and strategies for initial instruction will be made as part of the instructional

design of the series. The burden of selection of content and the search for appropriate materials for introduction will be assumed in the preparation of the television programs. The rationale for selection of instructional techniques, for the content, for the juxtaposition of the skills being taught or reviewed, etc., will all be available to the teacher. The teacher's time and energies can be addressed to the observation of the student while he participates in the television work, to making decisions about the student's intermediate needs and about the material available to provide needed review and enrichment, and to continue diagnosis and assessment.

Will All the Skills Identified as Essential in This Report Receive Equal Attention?

It is too soon in the conceptualization process to give a definite answer, but it can be said that each is of equal importance, and that only after the design of the series has been carefully plotted can the final answer be given.

The skills of computation and measurement should not receive direct attention, but should be dealt with as related and associated to many of the other skills work. The Educational Development Center is engaged in a task to produce a comprehensive series of television programs and related materials in mathematics for students eight through thirteen years old. A careful review of that project suggests that EDC will devote major attention

to computation and measurement while the Agency for Instructional Television should concentrate on the communication, inquiry, and analysis skills. Computation and measurement are, however, inextricably entwined with many of the skills in communication and in the development of study skills, and they will therefore be used in secondary ways in the total development of the AIT project.

What Materials Will Be Necessary To Accompany the Projected Television Programs?

At the outset, one is tempted to dream in large terms of the variety of instructional and manipulative materials that might supplement the core instruction, the television presentations. But one of the chief reasons other ambitious projects have failed is that they depended upon the investment of sizeable sums of money to purchase the additional materials that surrounded the basic instructional material. The cost of these, the likelihood that only some could be purchased, the complexity of their distribution and maintenance, the fact that they will depreciate -- all of this discourages further dreaming.

Additionally, it ought to be agreed that if, by television, we can provide a carefully-planned, superbly-developed instructional effort, then the medium of television can adequately carry the major responsibility, and pounds of supplementary materials should not be necessary.

While it is still much too soon in the conceptualization process to make a firm decision, it could be suggested that there be just one essential related item -- a concise handbook for teachers. This would include the following:

- The rationale for each of the television units.
- Identification of each skill being presented, reinforced, and reviewed.
- A synopsis of each "situation" through which the instruction would be presented.
- References to the existing curricular materials (books, workbooks, games, kits) that could be used to supplement the direct instruction.
- A checklist of all the skills being introduced and reviewed (for the teacher to use in working with the children).
- A similar checklist, though more of a "contract," for each student.

There are scores of other questions that must be dealt with and for which advice from practitioners will be sought. Among these are:

Will three levels of programming be sufficient?

How much overlap will there be among and between each level?

Is there agreement that fifteen-minute programs will be superior to thirty-minute offerings?

How shall student entry level skills be assessed as the student begins to participate in any one of the levels?

How shall the level of skills performance and mastery throughout the entire series be assessed?

Will there be any problem for a student who has used the instructional television series if the student moves to a school system that is not taking advantage of the televised instruction? (The answer to this question must come out to be "no." Otherwise, the instructional approach will not have fulfilled its promise.)

There is no reason to question again that the responsibility for instruction in skills essential to learning rests with the school. Nor is there reason to doubt that television ought to play a major role in instruction. What remains to be done is to enlist support, to design and test the most complete instructional effort that current knowledge and expertise will permit, to produce instructional materials of the highest quality, and to provide evidence that the level of performance in skills essential to learning can be substantially increased.

Two sets of reaction forms are attached to the inside back cover. Please return one completed set to Agency for Instructional Television, Box A, Bloomington, Indiana 47401

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REACTION FORM

ACQUIRING SKILLS ESSENTIAL TO LEARNING

Please respond to these questions as comprehensively as possible, using additional sheets as required. Your reactions will be considered in a subsequent revision of this report, a prospectus for a major cooperative television project, expected in July, 1974. Two sets of reaction forms have been provided. Please return one completed set to: *Agency for Instructional Television, Box A, Bloomington, Indiana 47401*

Name: _____ Title: _____

Agency: _____

Address: _____

The position taken in this preliminary report is that the essential skills are:

Communication (speaking, listening, reading, writing).
Computation and Measurement.
Inquiry (study skills).
Analysis and Evaluation (creative skills).

What do you believe to be the skills essential to learning?

-over-

Are the essential learning skills listed in this report a major concern of your agency? At the policy level? At the operational level?

Do you foresee your agency having special problems in the development, introduction and utilization of this project?

(continued)

This report recommends that the role of the television programs is to carry the major responsibility for presenting the essential skills curriculum. *Is this role realistic?*

If television programs carry the major responsibility for presenting the essential learning skills, what special preparation should be given teachers who use these programs?

Is a related handbook for teachers as recommended in this preliminary report adequate for the needs of teachers who may use the television programs?

Do you know of any special problems in the evaluation of a project in essential learning skills?

(continued)

In developing this report further, can you suggest resources that ought to be reviewed or people who should be consulted?

Television series:

Other instructional materials:

Curriculum projects:

Professional literature:

People:

Other resources:

-over-

We would appreciate any additional comments or reactions you may have to this preliminary report or to the potential project. Please take into account such things as: The need for this project, its feasibility, its scope, and other considerations that might lead to its acceptance. *In short, how do you really feel about this project?*

If you would like to receive additional copies of this report for your own use, please indicate the number desired.

Number of copies _____.

We would like to send this preliminary report to people you think ought to receive copies. Please list their names and addresses.

Please accept our thanks

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