

DOCUMENT RESUME

ED 084 177

SO 006 452

AUTHOR Bond, David J.
TITLE Curriculum Materials Examination System.
INSTITUTION Marin County Superintendent of Schools, Corte Madera, Calif.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE 1 Aug 70
NOTE 65p.; Marin Social Studies Project

EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Curriculum Evaluation; *Curriculum Planning; Educational Objectives; Educational Strategies; *Guidelines; Media Selection; Program Evaluation; Projects; *Social Studies

ABSTRACT

This document is a guideline for selection and evaluation of social studies curriculum materials developed by the Marin Social Studies Project. Questions are presented which will help in the examination of materials so that specific strengths and weaknesses in the materials can be determined. Consideration is given to the objectives and rationale of the materials, inquiry processes and topics presented, recommendations of appropriate teaching strategies, means of student motivation, appropriate media forms, and related evaluation instruments. A checklist for curriculum materials evaluation is included to aid the selector in quantification of the evaluation and in making comparisons among alternative sets of materials. Related documents are SO 006 450-SO 006 454. (SHM)

ED 084177

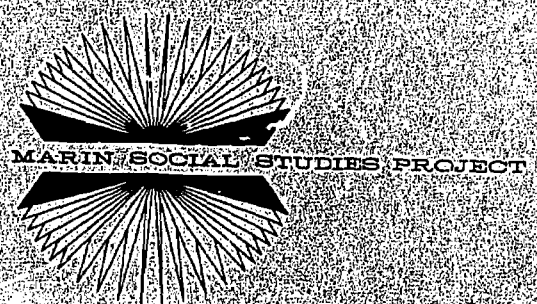
U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

AUG 5 1971

curriculum materials examination system

54006 452



ED 084177

C M E S

CURRICULUM MATERIALS EXAMINATION SYSTEM

by

David J. Bond

Marin County Superintendent of Schools Office
Marin Social Studies Project
201 Tamal Vista Blvd.
Corte Madera, California 94925

August 1, 1970

The work presented or reported herein was performed pursuant to a grant from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

I N T R O D U C T I O N

The salesman's presentation is smooth. He speaks of a concept/inquiry approach, or an individualized discovery program, or a multi-discovery strategy, and he flips big audio-visual cards, opens the text to an absolutely magnificent 27-color photograph of Abraham Lincoln, then scatters "overlays" across the table, explains the spiraling organization of major ideas, and concludes with a reference to the versatility and flexibility of these well-organized, carefully sequenced, durably bound materials. What the salesman never tells, though, is the answer to the question everyone really wants to ask: "Are the materials any good?"

On the following pages are questions which can be used to evaluate social studies curriculum materials. The purpose of the questions is to help you examine materials so that specific strengths and weaknesses in the materials come to light; so that you can come to some objective conclusion about the overall value of the materials.

The last section, "Curriculum Materials Examination Checklist," is a device that you may use to "quantify" your evaluation of the materials you examine. This may be useful when you make comparisons among alternative sets of materials.

C M E S

CURRICULUM MATERIALS EXAMINATION SYSTEM

INTRODUCTION

1.0 OBJECTIVES AND RATIONALE

- 1.1 What are the stated objectives and rationale of the materials?
- 1.2 To what extent are the objectives clearly/behaviorally stated?
- 1.3 To what extent is the rationale convincing?
- 1.4 To what extent is the rationale oriented to survival needs?

2.0 CURRICULUM CONTENT

2.1 Inquiry Processes

- 2.11 What inquiry methods do the materials purport to teach?
- 2.12 To what extent are the materials designed to teach students specific methods of inquiry, namely
 - 2.121 how to state a question (from informal queries to formal hypotheses)?
 - 2.122 how to distinguish types of claims?
 - 2.123 how to detect logical incongruities and use logical conventions?
 - 2.124 how to collect information (from simple research procedures to sophisticated experimental designs)?
 - 2.125 how to interpret information (from analysis by classification to statistical analysis)?
 - 2.126 how to arrive at evidentially-derived predictions?

2.2 Inquiry Topics

- 2.21 What are the concepts, themes, generalizations, theories the student will study?

2.22 To what extent are the concepts, themes, generalizations, and theories relevant to those problems which pose immediate threats to individual and collective survival?

2.3 Attitudes

2.31 What attitudes do the materials promote?

2.32 To what extent are the materials designed to develop those attitudes which are necessary to a free society?

3.0 TEACHING STRATEGIES

3.1 What specific teaching acts and/or strategies are recommended by the materials?

3.2 To what extent are the acts/strategies appropriate for teaching students how to inquire?

4.0 MOTIVATION

4.1 By what means do the materials attempt to motivate the student to learn?

4.2 To what extent do the materials involve the student in a variety of intellectual processes?

4.3 To what extent do the materials lend themselves to activities which will involve the student in a variety of student-teacher, student-student, student-materials interactions?

4.4 To what extent will the materials help the student learn about himself?

5.0 MEDIA

5.1 What are the media forms of the materials?

5.2 To what extent is there a variety of media forms?

5.3 To what extent are the media sensorially exciting?

6.0 EVALUATION

6.1 What kinds of evaluation instruments accompany the materials?

- 6.2 To what extent are there evaluation instruments which correlate with stated objectives?
- 6.3 To what extent are the evaluation instruments able to accurately measure student performance with regard to the stated objectives?

1.0 OBJECTIVES AND RATIONALE

1.1 What are the stated objectives and rationale of the materials?

Probably the first step in any examination of a curriculum is to find out the purpose, or objectives, of the curriculum. This is sometimes made difficult by the author's reluctance to openly state the objectives. Frequently the purposes are mentioned only in passing; occasionally the objectives are found hiding in section 127B/Z9 of the Teacher's Guide; and sometimes the objectives are not explained at all. Nevertheless, it's very useful to try to identify the objectives because statements of purpose reveal a great deal about a program.

The second step is to look for the rationale--an explanation of the reasons for the objectives. A rationale is simply an explanation of the reasons for teaching a curriculum, why the curriculum is needed, why it will be worth the students' time. Rationale statements are even harder to find than objectives. But again, they tell a lot about the author's intentions, his thinking, his beliefs, his values, his philosophy.

Once the objectives and rationale have been identified, they can be evaluated. It's not enough for a curriculum to simply include stated objectives and a rationale--the objectives should be good ones, and the rationale should be convincing. The following sections are explanations of the questions we think one needs to ask in order to decide whether the objectives of a curriculum are satisfactory, and whether the rationale is convincing.

1.2 To what extent are the objectives clearly/behaviorally stated?

The first question is, "What does that objective mean?" That is, has the author of the stated objective explained in very clear terms what he means by, for example, the words "appreciation" and "understanding"? Or are those words merely shiboleths-- educational catchwords that sound good but don't mean anything? The point of asking this question is simply this: if the author of the program can't explain in very specific language what he means by "appreciation" or "understanding," what reason do we, the users of the materials, have to believe that he knows how to design materials which will help students "appreciate" or "understand"? Robert Mager wrote a book entitled Preparing Instructional Objectives. One of the elementary points in that book is that objectives should be stated in terms of the student. Not many materials specify objectives for students, and that contributes to their ambiguity.

1.3 To what extent is the rationale convincing?

If the objectives are clear, a second question can be asked. Roughly stated, that question is, "So what?" So what if my students reach that objective? What good will it do them? Answering this question constitutes what is commonly thought of as "developing a rationale"--identifying the reasons for trying to reach the stated objective. Actually, this is only one-half of the rationale development matter, but we'll come to that in a minute. In the example used here, the standard answer to this second question (Why should I teach my students an understanding and appreciation of the growth of the American nation? So what if

I do?) is something like "to help them develop into good citizens."
Now what we've got to do is decide whether we know what that means--
whether it's just another "fabulous" but vacuous string of words.
What does the author mean by "good citizen"? Does he really have
a clear idea of what a good citizen is? Or is he, like the
candidate for political office, merely telling us what he thinks
we want to hear?

If we can decipher the meaning of the words, or, ideally, if
the author of the program explains very specifically what he means,
we can then ask whether it is worth our students' valuable time to
try to reach the objective. Or, to put it differently, does the
reason given for teaching a particular objective justify trying to
reach it? Is the objective actually connected to the reason given
for teaching it? Will gaining an appreciation and understanding
of the growth of the American nation actually contribute to the
development of good citizens? Do understanding and appreciating
the growth of the nation contribute to the development of those
skills and attitudes which students need? Will reaching that
objective make them want to be good citizens? The point of this
question is that it's not enough to say that understanding and
appreciating national growth will lead to good citizenship; the
author, or someone, must show that there is good reason to believe
that one will lead to the other.

Suppose an author of a set of materials said, "One of the
objectives of this program is for the students to memorize the
names of all the American Presidents," and then offered as the
reason, or rationale, this statement: "The objectives of this

program are important because students should know how the President discharges the duties assigned him by the Constitution." In this example an objective has been stated, and a "reason" for teaching that objective offered in support. The obvious question here is, "Will learning the names of the Presidents actually contribute to the students' understanding of how the President discharges his duties?" Probably not. Unfortunately, it's rarely this obvious, and we have to be persistent skeptics about the connection between the stated objective and the reason given for teaching it.

We frequently fool ourselves on this question--this question of connectedness--like the music teacher who says that listening to Mozart will lead to liking, or appreciating, Mozart. Well, our kids have been listening to Mozart in schools for a long time, and he's not exactly a favorite among youth.

1.4 To what extent is the rationale oriented to survival needs?

The fourth question that needs to be asked about objectives and rationale is particularly reflective of the philosophy of the Marin Social Studies Project: Are the objectives and rationale related to preparing students for survival challenges? This question is meant to give structure to the curriculum examiner's search for relevance in the curriculum; it's meant to help the examiner answer the question, "Is this curriculum relevant?" The answer to that question can be approached by asking another question: To what extent is this curriculum designed to prepare students for the challenges not only of today, but of tomorrow? To what extent does

this curriculum anticipate the future? Does it teach students to deal with problems which threaten man and society? Does it **prepare** students to deal successfully with racism, environmental contamination, wealth distribution, war, poverty, unemployment, inflation, revolution, violence, city planning, law enforcement, individual identity, love, hate, and so on? Or does it focus on lakes, rivers, Wild Bill Hickok, Coronado, obscure Prussian generals, and the Federal Power Commission? Is it about powerful ideas or is it about churning butter in Puritan New England? Is it about real social issues, like whether to put a business in a ghetto, or is it about how the postman delivers mail? If Daniel Boone's log cabin is the hub around which the spokes of the unit revolve; if baking bread is the focus of a unit on food in Mexico, we may confidently expect that unit to be of very little value.

If one takes a close look at a typical social studies curriculum, and relentlessly asks about each part of that curriculum, "How does this prepare the child for the world he must live in?" it becomes immediately apparent that most of the curriculum isn't pulling its own weight; that if we threw out the deadwood a great space for worthwhile stuff would be created. So in this section (1.0), there are altogether five questions which need to be asked of the curriculum materials being examined: (1) What are the objectives and rationale stated in the curriculum? (2) To what extent are the objectives clearly stated? (3) To what extent are the objectives connected to the rationale? (4) To what extent is the rationale a convincing argument? (5) To what extent is the rationale oriented to survival needs?

2.0 CURRICULUM CONTENT

This section is divided into three parts: Inquiry Processes, Inquiry Topics, and Attitudes. Very briefly, by inquiry processes we mean the tools, the methods, the machinery of thinking. By topics, we mean what has customarily been called content: the specific facts, ideas, and generalizations that we teach the student. Facts and ideas are the outcome of thinking; they are the product of the process. By attitudes I mean those behavioral proclivities which are produced by the combined operation of (1) what we know and (2) what we feel.

2.1 Inquiry Processes

Recent developments in psychology have persuaded architects of new social studies curricula that the mind is more than a warehouse. Traditional social studies curricula demanded that the student be intellectually confined to a textbook, the content of which was invariably a well-organized, clearly presented, effectively illustrated mass of drivel. Teacher's job was to ensure that the student "take it all down" and then, at test time, throw it back up. Especially good teachers were those who spiced up the textbooks with amusing anecdotes, thus padding the drivel with trivia.

Of course, not everyone taught that poorly. Some teachers, announcing themselves as mediators of knowledge ("When the text and I disagree, believe me, not the text!"), would discard the text in favor of paperbacks. This isn't much of an improvement if the student is still required to truck off and store great quantities of

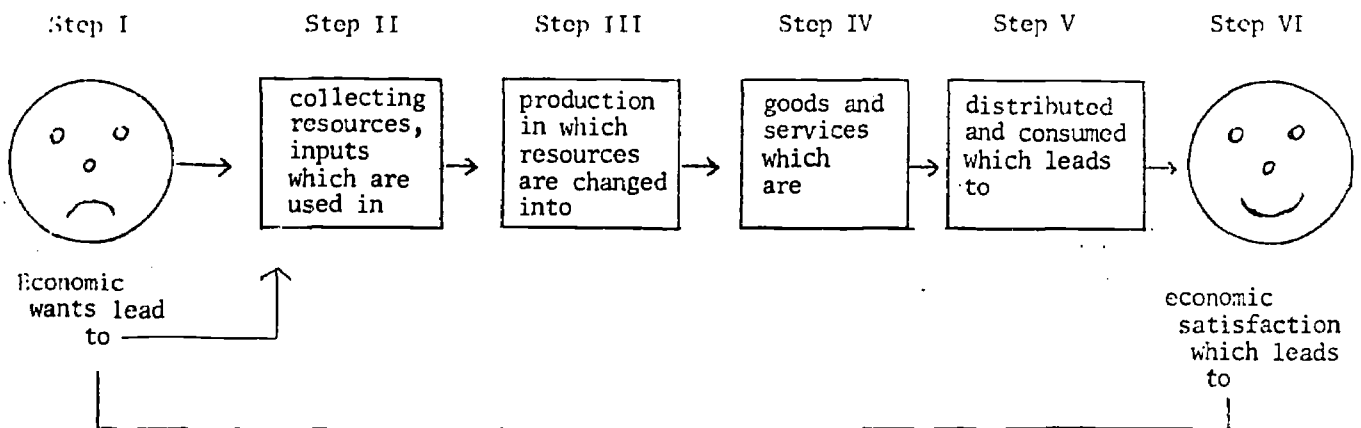
information four days a week and then haul it back to teacher on Friday. Teachers of this school invariably give essay rather than "objective" tests, thus emphasizing the importance of being not only a warehouseman, but a teamster as well.

Psychology brought to our attention a question which is central to the new social studies: "In what ways is the mind like a container?" Not very many. The mind is much more like a can factory than a can. Social science education theorists now claim that the mind can better be understood as a process or processes. Some refer to the mind as a "data processor." The difference between process and product is suggested by the story of the Englishman whose car broke down in the French countryside. Realizing that he needed assistance, he went to a nearby farmhouse to phone for help. While waiting for the mechanic to arrive, he sipped a glass of wine and chatted with the friendly farmer. He had not been there long when into the room burst two nearly identical boys. "Bonjour, Papa; Bonjour, Mama; Bonjour Monsieur," and off they went to bed. A moment later, a second older set of twins appeared, and like the first, greeted everyone courteously, "Bonjour, Papa; Bonjour, Mama; Bonjour, Monsieur." And they, too, went off to bed. After this performance was repeated for a third time by a third set of twins, the Englishman turned to the farmer and said, "Remarkable, twins every time, what?" "Oh, no Monsieur," the farmer replied, "twins three times; sousands of times nussing."

The Frenchman, obviously, was process oriented, while the

Englishman asked a question about the product. And so it is with the mind. We can talk about the process of thinking, or the ideas, facts, knowledge that we come up with as a result of having done some thinking. Process is about the how of thinking; product is what we think about.

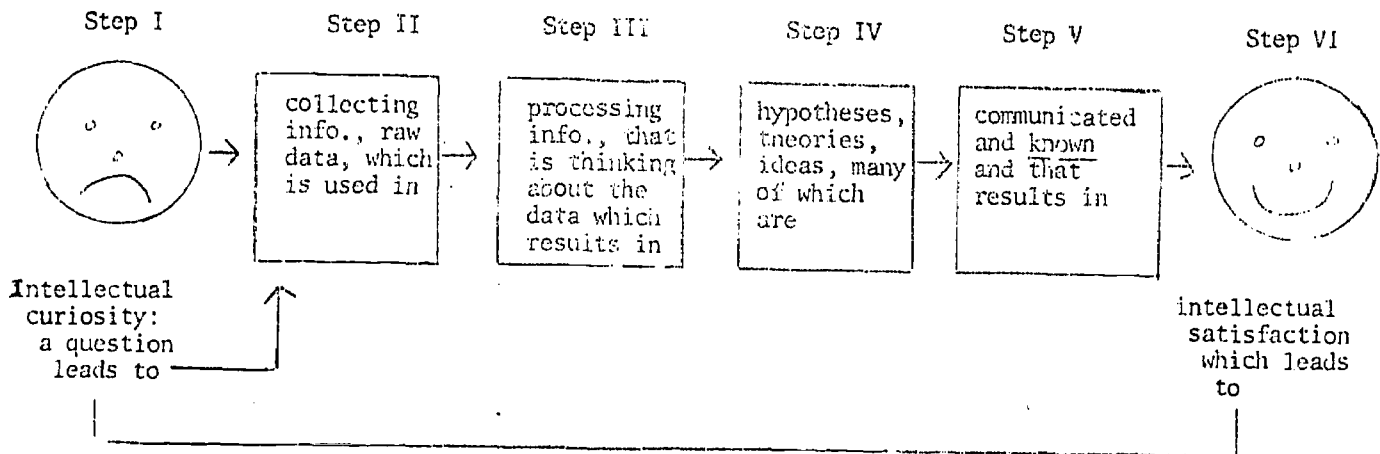
Another way of looking at this difference is to see it as an economist might. One of the models economists use is the want-satisfaction chain:



This model suggests that we have wants (Step I), that in order to satisfy those wants we collect raw material resources (Step II), and feed those resources into a production process (Step III). The output of the production process is goods and services (Step IV) which are distributed and consumed (Step V). And that results in economic satisfaction (Step VI).

Now if we apply this model to the matters of learning and

thinking, it looks something like this:



Admittedly, the want-satisfaction chain does not fit the problem of exploring, thinking, and learning perfectly. But there are similarities, and they are worth noting.

One of the important differences between new and old social studies programs can be understood by looking at this model. In traditional programs the student is expected to be attentive (Step I) and to "grasp" the subject (Step V and VI). Rarely were they asked to collect data (going to the library to copy six paragraphs on Paul Revere from the Encyclopedia is not data collection), process it (e.g., observing, defining, classifying, hypothesizing, predicting), come up with explanations, or communicate what is learned (students are normally asked to communicate what has been "taught," not what they learned).

In contrast to this approach, new programs try to involve the student at every step, so that he collects information (data),

processes it himself, and comes up with ideas that are a result of his own effort. Whereas Step V traditionally consists of the teacher or the book "telling" the kids, it would, given real inquiry, consist of students enthusiastically telling each other, or their parents, or the teacher, about what they've learned.

It should be made clear that the last figure in the model (the smiling face) is not meant to represent and end to the learning process. Knowing leads to new questions, or in this model, back to the curious face--and the process starts all over.

This whole process is, at least in part (and in a very rough sense) what I mean by inquiry. In Section 2.12 some very specific questions are asked about Step III of the inquiry model. Just as there is capital (e.g., machinery) in a production process, so is there capital in a thinking process. The questions in this section refer to the capital, or machinery of thinking, and are meant to help you locate in the materials (or note their absence if they are missing) specific thinking tools. Note: when I refer to "inquiry methods" I'm not talking about teaching methods--I'm not making reference to something the teacher is going to do. Rather, I'm talking about what the student is going to learn and do; I'm talking about specific inquiry tools which the student will learn from experience with a curriculum.

In some social studies classes students don't do very much thinking. In others, they do a lot of thinking, but don't know what it is they are doing; they may solve problems, make distinctions,

justify arguments in class, but because they don't become conscious of the thinking processes they are using, there is little transfer to situations outside of class.

For example, many students, at some time or another, are asked to justify what they say. But because the emphasis is on the idea being justified rather than the idea of justifying, they probably don't understand, as clearly as they should, what it means to justify.

Although there is little research on this question, a number of educational theorists are inclined to believe that conscious learning of the methods of inquiry will increase the probability that students will use those processes in new situations both in and out of the classroom.

2.11 What inquiry methods do the materials purport to teach?

The following list of inquiry skills, or tools, is by no means comprehensive, and there is a good chance, therefore, that the materials you will examine will include some skills which are not on our list. For that reason, you should try to identify all the inquiry skills in the materials, so that your evaluation of the materials isn't exclusively dependent upon this list. Here is my list with a brief explanation of each of the tools:

2.12 To what extent are the materials designed to teach students specific methods of inquiry, namely

2.121 how to state a question (from informal queries to formal hypotheses)?

All inquiry begins with a question. The ability to

ask clear questions--i.e., questions which can be answered--is a prerequisite to fruitful inquiry.

If there is no question, how can there be an answer?

Here is a story which points out the need for understanding how to ask questions:

My companions and I left the village at the foot of the mountain at 6:00 a.m. We arrived at the top of the mountain at noon, and made camp, with the intention of returning to the village the next day. That evening, as we sat around the fire, John, who teaches linguistics at the college, asked a question which perplexed us for several hours: "Do you suppose," he asked, "that if we leave here tomorrow at 6:00 a.m., and return to the village by the same trail we used today, we will pass some point on the trail at exactly the same clock time we passed it coming up?" We argued the matter for several hours, not realizing that the way in which the question had been posed interfered with our attempts to answer it. (Stop here if you want to think about the problem before reading the solution.)

The problem was resolved when one of us modified the question: "If one fellow started at the top, and another at the bottom simultaneously, would they pass each other?" "Of course!" we answered. "And wouldn't they pass each other at exactly the same moment on the clock?" Now we could see the answer. They would pass each other at some time, at some exact spot on the trail, and that is what we needed to know in order to answer the first question. If travelers coming from the opposite direction would necessarily pass each other at some spot simultaneously, then we would pass a point on the trail--some point--at exactly the same clock time as we passed it coming up. A simple problem, once the right questions are asked.

There is a great deal more to asking questions than is revealed by this story, of course, simply because there are many, many kinds of questions. At one end of the spectrum there are questions like, "What time is it?" "Who is the governor of Arizona?" and, "How many pints make a quart?" At the other end are questions like, "Does the power of the church as a life-directing agency depend upon a deity with a separate, self-sustained identity?" Some kinds of questions function as hypotheses, one of the very most important tools of inquiry.

A hypothesis is a tentatively-held claim about reality. Normally, hypotheses are stated in a manner that helps the inquirer use the hypotheses to guide his attempt to learn. We all use hypotheses every day. If my car breaks down, and I look under the hood to find the trouble, I am likely to begin my investigation into the matter with one or more hypotheses. Perhaps the fuel pump is broken. That supposition, or hypothesis, is a tentatively-held explanation of the breakdown (i.e., a malfunction in the fuel pump has caused my car to stop running) and that statement helps me decide where to look for the trouble. Note that the hypothesis, even though it is stated in the form of an assertion, functions as a question. If I hypothesize that the fuel pump is broken, I am actually asking whether a malfunctioning fuel pump is the source of the difficulty.

Hypotheses in social studies are formed in much the same way they are formed in the example above. They are used in all the disciplines--history, economics, anthropology, etc. Economists, for example, form hypotheses to explain the behavior of the labor market, the stock market, and the economy as a whole. Historians form hypotheses to explain the past. Whatever the discipline the hypothesis serves a purpose: it helps organize the search for answers.

It is important to realize the function of hypotheses. The man who has no hypotheses about the source of his car trouble is at a distinct disadvantage: he not only can't fix the car, he can't begin to find out what the problem is. His recourse is the expert--the mechanic--and that may cause him difficulty: how will he be able to decide whether the mechanic is telling him the truth? How will he know whether the repair bill is reasonable?

More to the point, how will the student know how to go about deciding whether to believe Congressman Twinrider when he says, "The reason the economy has slowed down is the four million bums in this country who are too lazy to work!" Most students don't know how to take the first step--recognizing that as a testable claim, or hypothesis--in analyzing comments like that, and are, consequently, at the mercy of the "authorities" in this world. That's to be expected, of course, because most students have been carefully surrounded by authorities: the teacher, the text, the workbook, the exam, the clock, the custodian....

2.122 how to distinguish types of claims?

The ability to distinguish types of claims, that is, assertions or propositions, is a prerequisite to inquiry. The student must be able to decide whether a given

proposition is objective, subjective, moral, aesthetic, empirical, logical, and so on. Any attempt to inquire into an objective claim as though it were subjective is fated to be unsuccessful. There is no way a student can make sense out of a problem in ethics if he thinks it is an aesthetic matter. Educators, particularly social studies educators, are badly confused about this; it is commonly believed, for example, that value claims are unrelated to factual claims, that any investigation into ethics must be subjective. That simply isn't true. Here is a generalization that is simultaneously a fact and a value judgment: botulinal food is not suitable for human consumption--people who don't want to die should avoid botulism. The point we want to make here is that value judgments can be analyzed; they are connected to the cognitive domain, and the positions we take on value questions should be as much influenced by logic and evidence as the positions we take on questions like, "Is the world flat?" Now that's a repulsive idea for a lot of people, the idea that value judgments can be analyzed, especially old guard social scientists. Nevertheless, the idea is supported by many contemporary axiologists: Michael Scriven, C.I. Lewis, George Edward Moore, Stephen Toulmin.

The question we need to ask here, then is do these materials contribute to the confusion about how we should deal with value claims? Here is a short excerpt from the Marin Conference held in October of 1969. The speaker is Michael Scriven, a full professor of the Department of Philosophy, University of California, Berkeley:

One of the main sources of confusion in the social studies curriculum, particularly those which get the students to deal with values, is a fundamental logical hang-up about the nature of the difference between facts and values, between describing and prescribing. Now we're going to have to go through some straight logic on this. I don't mean symbolic logic--I mean a simple examination of the discourse we use. I'd be inclined to start off with something like this: there is absolutely no intrinsic distinction between facts and values; the distinction can be made only in a specific context where specific claims are being made. For example, it's just a fact that pin-lever watches are lousy timepieces. It's a fact that that value judgment is true. Value assertions are factual assertions in many, many social science contexts. Within the total social science context there is no way of making a fact-value distinction very

sharp, and the minute you try to, you get into the sort of mess some new curricula are in. They get the poor damn kids to distinguish between "facts" and "value judgments." In five minutes it can be shown that everything those kids learn either rests on or is directly related to a completely erroneous distinction, and it can be shown to them. Those distinctions won't work; they're based upon an outmoded myth which we've simply got to outgrow.

There's some fascinating research on teacher attitudes which exemplifies this. In one account I read recently, the author reported at the end of his teacher training experiment that the whole thing had been a disaster; that the teachers were unable to understand that when they said there is good evidence for the conclusion that democracy is a good form of government, they had failed to understand the distinction between facts and values; they had failed to understand, as the line goes, that there can't be factual evidence for a value conclusion. Now some 60-70 percent of the teachers in the study thought there really is good evidence that democracy is a good form of government, and they were, says

the study, completely confused. They couldn't understand that when they say democracy is a good form of government, they are expressing an attitude that 'has no cognitive content.' Well, that's a lot of crap. If there isn't good evidence that democracy is a good form of government, what in God's name have we got it for? If it's really an arbitrary matter, how tyrannical it is of us to penalize people for attacking this American system by revolutionary means. If it's really arbitrary, we should simply divide up into the two groups, those who like democracy and those who don't, put the Mississippi between us and go our separate ways. But nobody really thinks it's an arbitrary matter, and they're damn right. There are very good reasons for democracy. And if it's our methodologists, social scientists, and curriculum developers who think that you can't give good, objective reasons in support for democracy, then educational reform is going to have to start with them, not with the teachers, who are right.

2.123 how to detect logical incongruities and use logical conventions?

The ability to detect logical incongruities is another prerequisite to inquiry. Logic is not so much a

separate discipline--like history, math or physics--
as it is the basis upon which disciplines rest.
Logic is at the bottom of all rational thought.
Contradictions, false analogies, and non sequiturs are
as destructive of inquiry in anthropology as they are
in chemistry as they are in math.

At the same time, the proper use of syllogisms,
inference models, analogies and so on, strengthens
the student's ability to inquire.

Unfortunately, there seems no way we can summarize
in a few pages the question of logical conventions.
There are so many, and each is so complex, that the matter
must be left hanging. Still, materials must be examined
for evidence of an attempt to teach students something
about logic rules and logic errors. Knowing at the outset
that it is a primitive probe, perhaps the question
can be put this way: To what extent do the materials deal
with inference models, analogies, contradictions, syllogisms,
non sequiturs, overgeneralizations, etc.?

2.124 how to collect information (from simple research pro-
cedures to sophisticated experimental designs)?

By "information collecting skills" I do not mean
knowing how to use the card catalogue, the Reader's Guide,
or the Encyclopedia. The ability to find the library,

a particular book, or periodical within it, or even a specific paragraph within a tract, are "information locating skills." The difficult skill--the skill we traditionally have not taught in public school classrooms--is knowing how to set up an inquiry strategy so that once the student is in the library--(or out in the field, or in the laboratory, or wherever)--he will know what to look for; he will be able to decide whether a particular idea, set of statistics, or argument is relevant to the inquiry he has undertaken. And that is information collection.

At one end of the spectrum, this means knowing how to ask questions so that they serve as criteria--nets, or screens, through which the student can sift all the information that comes to his attention. At the other end, it means being able to use survey methods, or being able to employ sophisticated experimental design models. Suppose, for example, that I, as a teacher, wanted to collect information on the effect of a new set of materials on my students' ability to classify political ideas as either radical, liberal, conservative, or reactionary. How would I go about finding out whether the materials were effective in this regard?

One way would be to use what is called an "experimental

design." Suppose I had thirty students. I could randomly assign the students to two different groups so that there were 15 students in each group. I could then test (pretest*) each student on classifying political ideas. One of the groups of students would then use the new materials, the materials I'm interested in testing, while the other group would use, perhaps, a traditional text on comparative political ideologies. The first group I'd call the experimental group, the second, the control group. After a period of instruction, which I would try to make identical in all respects not directly related to differences in the two sets of materials, I would test the students again. At this point I could say that I had collected information on the effects of the two different sets of materials on my students' ability to classify political ideas. Here is how my strategy looks in diagram:

<u>Random assignment to groups</u>	<u>(optional) Pretest</u>	<u>Treatment</u>	<u>Post-test</u>
Experimental group = 15	scores	use new materials	scores
Control group = 15	scores	use old materials	scores
Sept. 14	Sept. 15	Sept. 16 to Oct. 16	Oct. 17

*this isn't really necessary if the students have been randomly assigned to groups.

(Notice that I haven't said anything about interpreting the scores; that falls under interpreting information, which is discussed in the next section, 2.125.)

The point we want to make here is that collecting information is much more complicated than knowing how to use the library--that is, information collecting skills are necessary to inquiry, and the curricula we select for our students should contribute to the development of these skills. The inability to collect information successfully, whether using an experimental design or merely knowing how to use a question as a search instrument helps account for the many well-footnoted term papers that aren't worth a passing grade.

2.125 how to interpret information (from analysis by classification to statistical analysis)?

Once the inquirer has collected the data, he tries to figure out what it means. He may need to manipulate the data--that is, classify it, arrange it hierarchically, chart it, treat it statistically, or do anything else which will help him find out what it adds up to. Sometimes this process is very simple, sometimes very complicated--sometimes it is formal, sometimes informal. (And sometimes the data presents itself so clearly, sometimes what the data means is so obvious, that little organization or manipulation of

it is necessary.)

Had I actually conducted the experiment described in section 2.124, I would have come up with some scores which would need to be explained. I would have had to answer the question, "What is the significance of these scores?" In other words, before claiming that the new materials were different in some respect, I would have had to interpret the data.

Different kinds of collected data may require different strategies for interpretation. Interpreting a skull dug up at Oldavai Gorge is different from interpreting statistical information about voting behavior. Interpreting a set of observations made of old people in a park is different from interpreting a public opinion poll. And even though it is both possible and desirable to be creative in putting together an interpretation strategy, it must be recognized that interpretation in the social sciences is basically an objective, rather than subjective, process. The purpose of interpretation in the social sciences is to reveal the significance of the data, rather than create imaginative explanations which, although interesting, have more to do with the interpreter than the stuff being interpreted. This is another way of saying that all interpretations of a set of data are not equally valid--one person's interpre-

tation may not be as good as another's--and they can be objectively evaluated. In a sense, the interpreter of social science phenomena is more interested in finding out what the data says than what he can say about the data. (This can be confusing, because we often talk about "explaining" the data, or "saying something about the data," and of course we do do that.) And although the data has no voice of its own, it does have its own identity, and that's what we, the interpreters, are trying to expose.

2.126 how to arrive at evidentially derived predictions?

To begin with, it is important to distinguish between guesses and predictions. One guesses whether red or black will come up on the next spin of the roulette wheel; one predicts the weather. The difference is that evidence is used in making predictions--evidence about the past--while there is no way in which evidence can be used to predict the performance of a "fair" roulette wheel. (It can be said that the probability of red coming up is .47, and in that sense the wheel can be predicted. Still, there is no "wheel history"--past performance of the wheel cannot be used to predict future performance--and we can only guess which color will come up.) We can use information about today's weather, however, to predict tomorrow's weather. If I have no evidence about today's weather, if I do not use the past in

forecasting the future, then I can only guess about the conditions tomorrow. In social science, the idea is to learn how to use evidence so that we make predictions instead of guesses.

Even though few social studies materials have as an objective the teaching of prediction skills, it is important that our students learn them. Coping with tomorrow's world means preparing for it, and preparing for it means predicting it. "Que Sera, Sera" is a nice song, but to take the lyrics literally is suicidal. Therefore: to what extent do the materials teach students how to use the past and present to extrapolate the future?

2.2 Inquiry Topics

2.21 What are the concepts, themes, generalizations, theories, the student will study?

This question is designed to help us assess the "product," rather than the "process" side of the curriculum. It sets the stage for the one which follows. This question suggests that you, the reviewer, make a list of the main ideas--the concepts and themes and generalizations--that the student will encounter as he uses the materials. That list will be useful in answering the question in section 2.22.

2.22 To what extent are the concepts, themes, generalizations, and theories relevant to those problems which pose immediate threats to individual and collective survival?

In section 2.1 the inquiry processes necessary to survival were discussed in some detail. In this section we are interested in deciding whether the specific ideas to be studied by the student are among those which are most useful in preparing him for the future. In its simplest form, the question which needs to be asked of the materials is this: how will these ideas help the student deal with the world he will live in?

Now this means we can no longer fool ourselves with arguments like "the student must know the depth of the Amazon because he must have some knowledge of South America."

In order to justify teaching the student the depth of any lake, the height of any mountain, the date of any event, the function of any government bureau, or the route of any milkman, we've got to show how knowing that fact is directly connected to survival problems, how it's directly connected to preparation for the future. It means we can no longer teach students "supply and demand" in economics, or Amenhotep's tomb in World History, or Paul Revere's ride in American History, or income statistics in sociology, or Christian missions in California History unless we can show very clearly that these subjects will directly help the student survive--and that means handling the problems of a society which is increasingly violent, increasingly dirty, increasingly overcrowded, increasingly impersonal, and so on. Most of all, we can't justify what we teach next year with nonsense like "it's always been in the curriculum," "it's a basic part of the curriculum," "it's part of the foundation of the discipline," "he's got to have this to get into college," "he's got to have that to be ready for the next grade." Those arguments are cop-outs and if we go on using them we shall have to hold ourselves responsible for the death--and I mean the literal death--of the next generation.

By now, everyone, perhaps to the point of tedium, has heard about the dynamism of change. Many new social studies books say something like "never before has the

world experienced such rapid change" or "that which is changing most rapidly is the rate of change itself," and so on. I'm not going to beat that idea to death, but there are a couple of things that must come to our attention: At the current rate, man's total knowledge doubles about every ten years. In the last fifteen years, we have learned more than all mankind learned prior to 1955. By 1980 we will have learned twice as much as we know now. By the year 2000, we will have roughly eight times as much knowledge as we do today. Now I'm not just talking about physics, chemistry, and engineering; I'm talking about anthropology, sociology, psychology, education, gardening--the whole bag. It must be recognized that the knowledge explosion is going to utterly transform the world--it is going to present to us a world strikingly different from the one we live in today.

Were I to begin reading everything I could get my hands on, and if I read at the rate of 1000 words per minute, twenty-four hours per day, and if I retained every bit of information that I read, I would, at the end of one year, know proportionately less than when I started. Books are being printed and put on shelves much, much faster than I can read them. That's the knowledge explosion.

Now this raises an important question: Are we preparing our kids for a world in which there will be eight

times as much knowledge as there is today? Are we preparing kids for a world which will be different from the one we live in? Neil Postman's answer is that "the major educational problem in the nuclear space age is that almost all formal schooling--for rich and poor, black and white, urban and rural--is probably more damaging to children than beneficial, and probably reduces rather than increases their chances of survival."¹

Postman's comment raises another prerequisite question: Will our kids live to see the year 2000? If our children--our students--make it to the year 2000 it will be because they handled successfully the problems which now threaten man's survival: racism, war, poverty, riots, environmental contamination, assassinations, hate, and the rest. And that means that the content--the specific knowledge we incorporate in our curricula--must prepare the student not only for tomorrow, but for the emergencies which face us today. It can be argued, in fact, that the survival of this generation of adults is dependent upon what young people do in the next five to fifty years, not because they threaten us directly, but because we, the adults, do not seem to have the wisdom, the insight, the intellectual ability, or the feelings that are needed to deal with the problems that our narrow-mindedness, our prejudice, our hatred have created. Whether I live to be 75 years old

¹Taken from a transcript of a speech given by Neil Postman on October 24, 1969, in Berkeley, California, at the Northern California ASCD Conference.

depends upon what the fifty-five-year-olds and the thirty-five-year-olds do when I reach that age. Interestingly, the thirty-five-year-olds of whom I speak haven't been born yet, the fifty-five-year-olds are now in the fifth grade.

So what does this all mean? It means that we must put in our courses of study those ideas which are clearly connected either to (1) immediate survival threats or (2) the world of twenty-five years hence. We can no longer afford to teach what was taught yesterday, we can no longer afford to teach what has traditionally been taught; it's useless stuff. For example, third grade students who are told that the prominent features of a typical American community are a church, a post office, a well-planned system of tree-lined streets, white picket-fenced two-story houses, and a smiling service station attendant, are being deceived. It would be no less accurate to tell students that the typical American family consists of an alcoholic who loathes his job; a neurotic, bored-out-of-her-mind housewife; two whining, vindictive, pot-blowing teenagers; and a wormy dog.

We are seriously mistaken if we think that by providing students with an artificial, antiseptic view of American life, they will come to know God and respect the flag. Instruction of the kind we have provided over the last twenty years serves to effect, along about the freshman year in college, a very serious shock: the shattering

realization that one has been repeatedly lied to.

There is another disturbing characteristic of traditional materials: The range of emotions exhibited by people in elementary texts could not be narrower. There is no anger. There is no passion. There is no fear. The pages depict a population of uniformly happy people who smile, smile, smile. Perhaps it is because those textbook characters are so devoid of feeling that they almost never touch one another. Ron Small and Mike Harris, research assistants to the Marin Social Studies Project, examined some 2,500 pictures in 24 different K-3 textbooks, and found, among other things, only three pictures in which an adult is touching a member of the opposite sex.¹ Now what influence do those texts have on what our children learn, either consciously or unconsciously, about warmth and affection?

So among the questions we must ask in judging the worth of a set of materials are these: Are the ideas in it going to prepare the student to meet survival challenges? Is the knowledge the kid will get from this curriculum directly related to the problems he will have to handle? Will they contribute to his growth as a human being? Will they favor the development of a passionate, compassionate, vital human being? Or will they deaden? That's a lot to ask of materials, but not half as much as our children have a right to expect. And that leads me to attitudes.

¹Interestingly, all three pictures depicted Blacks.

2.3 Attitudes

The first question in this section (What attitudes can the materials be expected to promote?) suggests that the reviewer look through the materials for both implicit and explicit influences on attitude formation. The question here is "what kinds of attitudes can I expect these materials to foster in the student?" and concomitantly, "what evidence is there that these materials will influence attitudes at all?"

2.31 What attitudes do the materials promote?

2.32 To what extent are the materials designed to develop those attitudes which are necessary to a free society?

The rationale for the Marin Social Studies Project does not mean that survival is a bargain at any price; the goal is to survive in a world worth surviving in. (Of course, the idea of "a world worth surviving in" is implicated by the idea of survival itself, because nobody is going to want to survive in a world he doesn't perceive worth surviving in.)

The point I want to make here is that in order for man to survive in any meaningful sense of the word, in order for man to survive as something other than the living dead, he must work toward creating and maintaining those conditions which make life worthwhile-- conditions which maximize his opportunity for growth,

for learning, for loving, for experiencing the depth, the power, the mystery, and even, perhaps, the terror of life. This means he must not only have the intellectual ability to question, to wonder, to explore, to experience, but also the inclination. That inclination or desire is a function of attitude. By attitudes, I mean the predispositions created by either the marriage or collision of what we believe and how we feel about our beliefs. There are things we believe and there are ways we feel about those beliefs. The synthesis of feeling and belief is attitude. Attitudes are the constellatory arrangements of emotions and thoughts. The distinction between emotions and thoughts is not always clear, because they affect each other reciprocally. If you ask me about my attitude toward recent events in Asia, I will tell you that I know innocent children are being killed and that I am remorseful and guilty about that fact. The synthesis of the belief (innocent children being killed) and the feeling (remorse and guilt) make up an attitude: compassion. Compassion, it should be noted, is more than feeling: it incorporates belief. One cannot be compassionate without belief, and one cannot be compassionate without feeling.

It is therefore possible to talk about attitude validity, for one of the measures of an attitude is the

accuracy of the beliefs which help make it up. If I believe, for example, that only soldiers are dying in Asia, my attitude will be made up, in part, by an erroneous belief. And it's necessary to talk about the feelings that go into making up attitudes. We've simply got to face this reality: there's no longer room in this world for hate. We have got to help students develop attitudes that preclude hate if we want to survive--not only physically, but emotionally as well.

The question that needs to be asked of the materials in this section, then, is what kinds of attitude configurations will these materials foster? Will the materials promote combinations of feelings and beliefs which are necessary to survival in a free society? Will they encourage the development of such attitudes as tolerance or will they foster ethnocentrism?

At the risk of specifying too little, here is a short list of attitudes that are worth promoting:

1. open-mindedness
2. compassion
3. tolerance
4. passion
5. love of learning
6. responsibility for self

And here is a short list that are not:

1. authoritarianism
2. ethnocentrism
3. bigotry
4. anti-intellectualism
5. hate (including self-hate)

3.0 TEACHING STRATEGIES

3.1 What specific teaching acts and/or strategies are recommended by the materials?

The first step in this section is to examine the teacher's guide (if one accompanies the student materials) for explanation of ways in which the teacher is advised to interact with the students. Do the materials recommend lecturing, questioning strategies, story-telling, film-showing, a combination of these, or some other means of presenting the content of the curriculum to the students? A short list of the predominant recommended teaching strategies will be helpful in answering the next question.

3.2 To what extent are the acts/strategies appropriate for teaching students how to inquire?

In this section, we are primarily concerned with judging the recommended teaching strategies in terms of their potential for helping students inquire. The question is "given that the materials are oriented to inquiry (and they may not be), are the recommended strategies compatible with that orientation? Will the strategies help students inquire?"

Sometimes "helping" may mean getting out of the student's way--leaving him alone to explore and discover the world himself. Sometimes "helping" may mean asking a question, or helping the student formulate a question. Teaching for inquiry does not mean filling the student's head full of facts; it does not mean that the teacher is to serve as an authoritative source of all answers.

On the other hand, teaching for inquiry does not mean abandoning the student to accidental learning--it does not mean that the student cannot get help and guidance. There's a myth going around that there are, at least in the final analysis, no right answers. Well that, as one writer put it, "is one of the strangest aberrations ever to visit the mind of man."²

There are many right answers to many questions, and it is destructive of the student's intellectual growth to suggest otherwise. The important thing to recognize is that dogmatism and authoritarianism are antithetical to inquiry. Answers are not transmitted to the student; they are learned by the student--they are shared by student and teacher.

About lectures: Upper grade teachers have been hampered by the belief that lectures have an inherent academic quality. When judged in terms of the intellectual events that take place in the heads of most listeners, however, that strategy stands out more often than not for its lack of academic effect. In a typical classroom lecture situation, many, sometimes most, of the listeners aren't listening. Of those that are, a good portion don't understand what's being said, simply because the sounds, which once uttered are irretrievable, go by too quickly. Of those that do understand what's being said, a good portion are bored because it's all being said too slowly. Of those who are not bored, confused, or thinking about sex, a good portion are genuinely

²Lewis, C.I., *An Analysis of Knowledge and Valuation*, (Chicago: Paguin Printers, 1946) p. 366.

interested--they have questions in their minds which they would either like to (1) ask or (2) think about. If they think about them, they will lose track of what's being said, and eventually become confused. If they ask the question and the teacher responds, that student, and others who are alerted by the student who asks the question, may learn something. But then that's not lecture--that's discussion.

Now this is not to say that teachers should never lecture. Lectures can be both stimulating and instructive. But there are some questions one needs to ask before proceeding:

1. Will my students do anything more than record what I say?
2. Will they even record?
3. Is there a more efficient or effective way of transmitting this information (e.g., in writing)?

So the fundamental question to be asked about a recommended teaching strategy goes something like this: What will go on inside the students' heads if I use it? Will it assist and promote thinking?

4.0 MOTIVATION

4.1 By what means do the materials attempt to motivate the student to learn?

In a sense, there are but two ways to motivate a student: one is to help the student learn about things he is already interested in. The other is to help him discover new interests. The point I mean to make here is that it is unreasonable to expect students to want to inquire about those things they don't want to inquire about (or, for that matter, about those things they don't need to know). If there are things students must know, but despite our efforts cannot be interested in, then we must rely on methods other than inquiry to accomplish that instruction. Very little work has been done in the area of predicting student interest.

Our research shows, however, that if there is any single critical variable, it is that of the degree to which the belief system is disturbed. Students are rarely aroused, either emotionally or intellectually, by detailed information on the function of the assistant secretary of the Interior, because there is nothing about that man, or his office, that has real consequence for the student's belief system. 1000 pages of information about King George hasn't half the belief-disturbing power as one line out of Johnson and Masters' Human Sexual Response. The probability that a particular idea or piece of information will interest a student can be roughly determined, then, by calculating the portion of the entire belief

system which that idea will disturb. Information about various lawn grasses, for example, has little relevance to the whole belief system and would, therefore, be of minimal interest to most students. Information about war, however, could be expected to disturb large parts of the belief system (beliefs about patriotism, pain, death, courage, are very closely related to the concept war) and, consequently, be of much greater interest.

There is a great deal more to motivating a student than simply figuring out how to affect his belief system. Here are some additional questions which are worth considering:

4.2 To what extent do the materials involve the student in a variety of intellectual processes?

Traditional curricula require that the student be a receptacle. His learning state is passive, rather than active. He is expected to have answers instead of questions, solutions rather than problems. He spends most of his time in a chair, isolated not only from the community, but from the teacher and even his fellow students. He is expected, in this confined state, to "pay attention" and commit to memory the knowledge offered by the book, the teacher, or, when the teacher decides to use a supplementary material, the encyclopedia.

In contrast to that state, some new programs encourage the student to do just the opposite. The subject is not prechewed by the teacher and the student therefore has a chance to learn, rather than be "taught." He is encouraged to have questions, as well as answers; he is encouraged to be anxious--to get his intellect into

the subject much in the same way a farmer gets his hands into the soil. He is encouraged to come in contact with the world and to do much more than memorize it as it goes by.

4.3 To what extent do the materials involve the student in a variety of student-teacher, student-student, student-materials interactions?

I've alluded to this matter in the section on teaching strategies. This question suggests that there is an enormous difference between the curriculum that allows for one kind of student-teacher interaction (e.g., lecturing), one kind of student-student interaction (e.g., group projects), and one kind of student-materials interaction (reading the book) and the curriculum which provides for a variety of interactions between the student and the teacher, the student and the student, the student and the materials, and, even, the student and the community. The latter curriculum, other things being equal, has a much better chance of succeeding.

4.4 To what extent will the materials help the student learn about himself?

In a final sense, we learn to find out about us. That is why we study the world: we are reflected in it. Programs that help students learn names of rivers, dates of wars, the budgets of governmental bureaus, and so on, will not likely be of much interest to students. On the other hand programs that focus on human behavior, belief systems, and values, for example, have a much better chance of motivating the student. Frequently, programs are organized around ideas that would at first blush seem to be very interesting. Yet because the student does not understand

why those ideas are relevant to his own life, the program fails to interest him.

This means that the materials should be highly relevant to the student's belief system; that is, if the student's belief system is not affected by the curriculum, it is highly probable that the student will be bored.

5.0 MEDIA

There has been, in recent years, considerable interest in media. Marshall McLuhan has written several widely discussed books and articles on the subject, and a number of universities and foundations have sponsored experiments in the effects of media on perception, learning, and so forth. What seems to be clear from these efforts is that the way in which a message is sent is much more powerful an influence on the receiver than we previously believed.

So McLuhan entitled one of his books The Medium is the Message, and because there were so many people running around talking about a new book entitled The Medium is the Message, his point was made before the first page of the book was turned.

The point is, Gutenberg is dead, and the tube, the computer, the light projector and the sound amplifier are far more important than the printed page in terms of their comparative effects on kids. And yet most of the "materials" which students use in social studies are paper. Neil Postman had this to say:

"But changes in communications media, I think, require new skills and new competencies and new patterns of behavior, none of which most schools at present seem to have much interest in. First, reading and writing are still very important skills, but not any more important, in my opinion, than the listening, seeing, photographing, editing, speaking, and recording skills that are demanded by TV, film, radio, recording, lp records, and the like. At present so far as I can tell, the schools approach the teaching of communication skills as if the electric plug did not exist. And, in fact, the fetish (and I use this term advisedly) about teaching children to read is an excellent illustration of what might be called

'future shock.' Just at that point in communications history when reading has less importance than it has had for five hundred years, the schools have organized themselves for a full-scale attack on reading disabilities. In other words, the schools are about three hundred years too late and don't even seem to be much aware of that fact."³

So there are three basic questions that need to be asked under the heading "media":

- 5.1 What are the media forms of the materials?
- 5.2 To what extent is there a variety of media forms?
- 5.3 To what extent are the media sensorially exciting?

³Taken from a transcript of a speech given by Neil Postman on October 24, 1969, in Berkeley, California, at the Northern California ASCD Conference.

6.0 EVALUATION

One of the words most misused and, consequently, least understood by educators is the term "evaluation." Evaluation is variously used to mean:

Diagnosis of student abilities and competencies prior to instruction.

Summative evaluation (finding out if students are willing or able to do what they are supposed to be willing or able to do after instruction).

Formative evaluation (determining the quality of the components that influence instruction, i.e., teachers, teaching strategies, classrooms, materials, equipment, curriculum, testing instruments, etc.).

Testing students, including

- A. writing tests
- B. selecting tests
- C. administering tests
- D. scoring tests

Assigning grades to students.

This section of the document is concerned only with summative evaluation, that is, whether the student "learned." The implication here is not that the other kinds of evaluation are not important. The

concern is that materials should be evaluated (formative evaluation) by determining whether or not devices or procedures are included which will allow either students or teachers to judge a student's post-instructional performance.

6.1 What kinds of evaluation instruments accompany the materials?

This question only requires a search for student workbooks, tests, suggested student activities, end-of-chapter questions or whatever may exist that the authors have included for potential evaluation of student performance.

6.2 To what extent are there evaluation instruments which correlate with stated objectives?

This question is related to item 1.1. If the authors have stated some specific kinds of objectives it is necessary to determine whether there are any evaluation devices to measure student performance in terms of those objectives.

The great danger in answering this question is to presume that there are logical connections where there are none. For example, if the authors state that an objective of their program is "to make students good citizens" and tests are provided to measure students' ability "to recall the three branches of the federal government" then there are no logical connections.

6.3 To what extent are the evaluation instruments able to accurately measure student performance with regard to the stated objectives?

Evaluation instruments should be included with materials that match the stated objectives of the program. The term to remember is "appropriate practice." If evaluation instruments

require that students read, write essays, and answer true-false questions then they are being evaluated on their ability to read, write essays and answer true-false questions. If an objective of the program is that students learn to use parliamentary procedures then they must be evaluated while they are using parliamentary procedures, not on answering true-false questions about parliamentary procedures.

CURRICULUM MATERIALS EXAMINATION SYSTEM CHECKLIST

This section is meant to help you "quantify" your evaluations. It is not a precise instrument and the user should expect no more than rough estimates of the actual worth of the materials.

The quantification tables can be used in several ways. The user may, perhaps for lack of time, decide not to examine the materials in terms of every question in the main body of this document. Or the user may elect to assign different weights to various questions. Although weighing the questions is not critical to successful use of this instrument, the author believes that some of the considerations are more important than others. Consequently, suggested weights have been given to each question.

Scores for materials are obtained by deciding whether the materials meet the standards in each question: "substantially" (3 points), "moderately" (2 points), "minimally" (1 point), or "not at all" (0 points). The number derived by the assessment can then be multiplied by the "importance factor." The product is a subtotal which may be added to subtotals from other questions for an overall score for a given set of materials.

The materials you decide to use will undoubtedly have weaknesses. Your discovery of them, however, will enable you, to some extent, to compensate for those weaknesses.

Note: the first question in each major section is not an evaluation question; rather, it is an exploratory question which will help you answer those which follow. Spaces are provided after each question for your numerical evaluation: (3 = substantially; 2 = moderately; 1 = minimally; 0 = not at all) and the subtotal (numerical evaluation x importance factor).

EXAMINATION CHECKLIST

1.0 OBJECTIVES AND RATIONALE

1.1 What are the stated objectives and rationale of the materials?

1.2 To what extent are the objectives clearly/behaviorally stated?

Numerical
evaluation: _____ X 3 (importance
(factor) = _____ (subtotal)

1.3 To what extent is the rationale convincing?

Numerical
evaluation: _____ X 3 (importance
(factor) = _____ (subtotal)

1.4 To what extent is the rationale oriented to survival needs?

Numerical
evaluation: _____ X 3 (importance
(factor) = _____ (subtotal)

_____ Total

2.0 CURRICULUM CONTENT

2.1 Inquiry Processes

2.11 What inquiry methods do the materials purport to teach?

2.12 To what extent are the materials designed to teach students specific methods of inquiry (as described)?

Numerical evaluation: _____ X 3 (importance factor) = _____ (subtotal)

_____ Total

2.0 CURRICULUM CONTENT

2.2 Inquiry Topics

2.21 What are the concepts, themes, generalizations, theories the student will study?

2.22 To what extent are the concepts, themes, generalizations, and theories relevant to those problems which pose immediate threats to individual and collective survival?

Numerical
evaluation: _____ X 3 (importance
(factor) = _____ (subtotal)

_____ Total

2.0 CURRICULUM CONTENT

2.3 Attitudes

2.31 What attitudes do the materials promote?

2.32 To what extent are the materials designed to develop those attitudes which are necessary to a free society?

Numerical evaluation: _____ X 3 (importance factor) = _____ (subtotal)

_____ Total

3.0 TEACHING STRATEGIES

3.1 What specific teaching acts and/or strategies are recommended by the materials?

3.2 To what extent are the acts/strategies appropriate for teaching students how to inquire?

Numerical evaluation: _____ X 2 (importance factor) = _____ (subtotal)

_____ Total

4.0 MOTIVATION

4.1 By what means do the materials attempt to motivate the student to learn?

4.2 To what extent do the materials involve the student in a variety of intellectual processes?

Numerical evaluation: _____ X _____ 2 (importance) (factor) = _____ (subtotal)

4.3 To what extent do the materials lend themselves to activities which will involve the student in a variety of student-teacher, student-student, student-materials interactions?

Numerical evaluation: _____ X _____ 2 (importance) (factor) = _____ (subtotal)

4.4 To what extent will the materials help the student learn about himself?

Numerical evaluation: _____ X _____ 2 (importance) (factor) = _____ (subtotal)

_____ Total

5.0 MEDIA

5.1 What are the media forms of the materials?

5.2 To what extent is there a variety of media forms?

Numerical
evaluation: _____ X 1 (importance
(factor) = _____ (subtotal)

5.3 To what extent are the media sensorially exciting?

Numerical
evaluation: _____ X 1 (importance
(factor) = _____ (subtotal)

_____ Total

6.0 EVALUATION

6.1 What kinds of evaluation instruments accompany the materials?

6.2 To what extent are there evaluation instruments which correlate with stated objectives?

Numerical evaluation: _____ X 2 (importance factor) = _____ (subtotal)

6.3 To what extent are the evaluation instruments able to accurately measure student performance with regard to the stated objectives?

Numerical evaluation: _____ X 2 (importance factor) = _____ (subtotal)

_____ Total

CHECKLIST SCORE SHEET

	<u>Your Total Score</u>	<u>Potential Score</u>
1.0 - - - - -	_____	(27)
2.1 - - - - -	_____	(9)
2.2 - - - - -	_____	(9)
2.3 - - - - -	_____	(9)
3.0 - - - - -	_____	(6)
4.0 - - - - -	_____	(18)
5.0 - - - - -	_____	(6)
6.0 - - - - -	_____	(12)
 OVERALL SCORE	_____	 (96)

<u>Scale</u>	<u>Potential of the Materials</u>
90 - 96	Excellent
80 - 90	Adequate
70 - 80	Major reservations
60 - 70	Needs much work