ASSESSING TEACHERS' PERCEPTIONS UNDER THE IMPACT OF A CLINICAL CURRICULUM DESIGN

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
NANCY W. BAUER
1971

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presented by

Nancy W. Bauer

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Ph.D degree in Curriculum

Major professor

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ABSTRACT

ASSESSING TEACHERS' PERCEPTIONS UNDER THE IMPACT OF A CLINICAL CURRICULUM DESIGN

By

Nancy W. Bauer

The Problem

Clinical teaching behaviors are among those that help teachers adjust to the variety of differences in students, while maintaining in a common motif definite objectives. Clinical teaching includes recognition of objectives, diagnosis of student needs, selecting alternative strategies and evaluating the results in relation to the objectives. Clinical teaching style is particularly helpful in those subjects in which problem analysis and resolution require a group setting for the interaction of different individuals with different skills and differing values and perceptions.

The investigator had developed (1965) a curriculum design which would give teachers continuing support in clinical teaching in social science, including the values area. The curriculum design was based on twelve specified criteria for clinical behavioral teaching style and was published as the Teacher's Edition of The Social Sciences: Concepts and Values, (Harcourt Brace Jovanovich, Inc., 1970).

The study sought answers to the following questions:

1. How clinical are teachers' perceptions?
2. Are there demographic factors (age, grade level taught,

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years of experience, socio-economic setting of the school) which bear on a teacher's degree of clinical perception?

3. When teachers use the curriculum design of the Teacher's Edition do changes in perception occur?
4. Can these changes be classified to determine whether they do or do not relate to the criteria and objectives of the input, i.e. the concept of the clinical curriculum design?
5. Can clinical behavioral perception be measured by low level simulations?

Methodology

A survey technique was used involving an open-ended questionnaire administered at three points in time to a large sample. The test items measured perceptions which were coded to the twelve criteria for clinical behavioral style. Each response was scored as clinical or not clinical; each clinical response was classified according to predetermined categories and coded to one of the twelve criteria for clinical behavioral style.

Findings

In most categories the proportion of teachers' perceptions that were classified as clinical was small. Distribution of choices among possible clinical categories differed depending on the viewpoint required by the questionnaire item. Although few teachers had a coordinated view of the factors in the instructional environment, the posttests reflected some increase in the clinical direction and a redistribution of choices that more closely approximated the clinical teaching functions of a teacher.

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ASSESSING TEACHERS' PERCEPTIONS UNDER THE IMPACT OF A CLINICAL CURRICULUM DESIGN

By

Nancy W. Bauer

A THESIS

Submitted to
Michigan State University
In partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Education

1971

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NANCY W. BAUER
1972

To

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EVAN and D

To

STEVEN, who supplies continual insight,
confidence and the humor of the long view

and

EVAN and DAVID, who understand and care.

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Dr. Ted W. Ward,
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ACKNOWLEDGMENTS

The need for shared expertise was met by several people during the course of this project. It is my privilege to acknowledge those who so graciously gave of their time and judgment.

Dr. Ted W. Ward, Professor of Education and Director of the Learning Systems Institute, is a remarkably skilled practitioner of clinical teaching behaviors as well as a philosophical builder of theory. In seminar and in the advisory dialogues which maintained the objectives of the study and the equilibrium of the investigator, he displayed both economy and style. I am grateful for his trust in the student's ability to ask questions before it is too late. With dispatch, which was never tinged with preoccupation, he shared both his extraordinary ability to conceptualize and synthesize and his commitment to scholarship.

The original idea for focusing curriculum research on teachers came from Dr. Paul F. Brandwein, President of the Center for the Study of Instruction (a division of Harcourt Brace Jovanovich, Inc.). It was he who recognized and supported from the beginning the need for a Teacher's Edition that could "orchestrate" an ideal into objectives by eliminating the usual three way separation of people, learning experiences and materials.

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His support of this project is only one aspect of the Center's view that a publisher has educational responsibilities which must include a commitment to research beyond formative evaluation.

Dr. Howard S. Teitelbaum, research consultant, helped make the criteria and implications of the study explicit and patiently maneuvered the investigator through the statistical procedures with a never-ending supply of verbal analogies. His optimistic view that even those trained in the humanities can quantify their priorities was heartening.

The very young woman who managed the nation-wide, endlessly detailed communications with good humor and care was Diane Giebel, secretary to the project at the Learning Systems Institute. She learned to sense the need for a question before the answer became too difficult.

This study involved a great deal of refining of criteria and procedures. The secretarial and clerical activities required absolute accuracy and the courage and good will to "do it all over" many, many times. The work involved in developing the proposal and initiating the study was presided over by Marian J. Sonke. She was never able to panic, ignoring the investigator's ability to create cause for it.

The painstaking work of reporting statistical analyses and communicating results clearly was enormously facilitated by both the mathematical and secretarial skill

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of Elizabeth J. Ford. She possessed the unusual talent for being able to type, edit copy, warn against pitfalls and suggest a better way simultaneously. She was a sensitive consultant on the uses of the English language.

E. Steven Bauer, married to the investigator and, therefore, to the project, gave invaluable assistance in research design and interpretation of data out of his own experience in research in the life sciences. Field research in education and clinical trials in medicine and pharmacology share the difficulties of research on real people in real settings. His own caution in making inferences was imparted with understanding of both the constraints of the data and the investigator's pre-research history of the easy generalization.

Inadequacies and errors which occurred in spite of skilled guidance and assistance are, of course, the full responsibility of the investigator.

September, 1971

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Chapter I

THE PROBLEM

Educational research has focused on identifying those ehaviors which make up the "art of teaching". Much of iis work has been empirical, using systematic observation id classification or coding schemes to record what eachers do.

Coupled with this has come the application of research n learning which has caused educators to face up to the ask of meeting the needs of individual children. Many of ne ways in which children differ are now known (among them: otivation, communication skills, peer group ties, socio-conomic background, attitudes, values). Teachers are xpected to adjust teaching behavior to the variety of ifferences in students, while still maintaining in a ommon motif definite objectives in conceptual under-tanding, cognitive processes and skills of interaction id problem resolution.

How can teachers both maintain behavioral objectives r all students and meet a variety of individual needs? o major ways have emerged: by designing materials which dividual students can use on their own without a teacher by identifying and developing strategies for teachers ich help them to recognize individual needs and structure arning experiences to meet them.

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The materials for independent study have had considerable success in those disciplines known as "skill areas": mathematics, reading, spelling, grammar, etc. Each of these areas has been broken down into sub-skills and these have often been arranged into an arbitrary but comprehensive sequence.

Individualized instruction of this sort is obviously not suited to those subjects in which problem analysis and resolution require the interaction of different individuals with different skills and differing values and perceptions. These interactive subjects are laboratory or investigative science, social science and the humanities. They need children who work and discuss with other children; they need adults who can diagnose snags in understanding and barriers to interaction and make on-the-spot decisions on how to modify or change the learning experiences. Teachers in interactive subjects must "tune" the curriculum as they go, while the problem analysis, discussion and problem-resolving is in progress. Adjusting the curriculum in these subjects is particularly intricate as the cognitive and affective learning experiences cannot and should not be separated. Problem-resolving in social science is the result of both the application of concepts and the generating and selecting of alternative solutions because of their predicted effects on values.

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The long-range problem is the development of clinical
ehavioral style in all teachers; this style includes
ecognizing hypotheses and objectives of the curriculum;
iagnosing the attitudes, values and past experiences of
ach child as he generates alternatives and is confronted
ith differences between himself and his friends; accepting
ie responses and using questioning strategies and alternative
xercises to help the children explore their own and other's
oints of view and choices of action; evaluating continually
o determine the nature and degree of distance from the child
o the objectives; revising strategies and hypotheses when
dvisable.

Such a "clinical behavioral style" can operate effectively
specified directions with groups of children who are
arning to use social science to resolve social problems.
ere is considerable agreement on the nature and positive
lue of clinical behavioral style. There is less agreement
d expertise on how to achieve it in teachers.

The immediate problems which constituted the focus of
is study were as follows:

to acquire a clearer description of the present orientation of a wide range of teachers toward each of the specific strategies which together compose clinical behavioral teaching style; and

to assess any change in teachers' perceptions under the initial impact of a social science curriculum design which promotes clinical behavioral style,

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particularly in the values-laden area of resolving social problems in a group setting in the elementary social science classroom.

This study aimed at a detailed description of teachers' rceptions, classified from a clinical behavioral point of ew, assessed at several points in time: before the use a clinical curriculum design, after the initial impact using such a design and after the completion of two-thirds a school year in which such a design was used. It must clearly understood that curriculum materials constitute e way among several to help teachers become increasingly inical. To be helpful the materials must be designed d engineered to include the people-to-people dynamics the broadest definition of curriculum.

In order to see the problem area clearly, several sertions need to be made and supported:

Clinical teaching behaviors can be identified and taught to teachers.

The Learning Systems Institute of Michigan State iversity has identified elements of clinical behavioral yle and created a model.[1] From this model a methodology preservice training of elementary teachers has been ructured.[2] Clinical behavioral style has been spelled in detail, both as propositions for skilled teaching as specific behaviors which must be utilized before, ing and after teaching. The focus is on teaching as eries of decisions, analysis of results of those isions, and the making of new decisions on the basis

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e relationship between the goals and what has happened.
linical teaching model is cyclical. The results of
eacher's behavior are not considered end-products but
ack--utilized to diagnose the problems of the learner
o prescribe new approaches and/or to modify the goals
ypotheses for which the original action was taken.
linical teaching behavior assumes a complex view of
ach learner.

Other research has also highlighted in-class decision-
g behavior through a communications or inquiry model
man, 1968) in which the child is seen as a control
r, storing a variety of ways of organizing the data
d him. The teacher uses words to retrieve stored
s or organizers. Whatever is retrieved constitutes
ack. Through continued interaction the teacher uses
ack to make decisions, prescribe and engineer the
ing. In this way the teacher continually influences
equence and direction of the child's activity. Much
chman's work has been applied in science in which the
er uses inquiry into the control center while he
s the child to inquire into the raw data of his
al environment.

e communication or inquiry model is similar in
ays to Norbert Wiener's cybernetic model in which
careful to explain that when information is pro-
(in learning--by the student) it is not a simple
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rature of the student. Wiener's view of what happens
formation as it is processed corresponds to Piaget's
of assimilation, accommodation and equilibrium.
ild processes and interprets his environment.
e implications for teaching are clear. Feedback
be expected to be a simple repetition of the
of information. It has been processed and is,
ore, full of meaning for the teacher who is able
lyze it and act on it. Feedback is "fed back" into
structional system or the interaction in the classroom.
(1954) neatly describes what happens and delineates
sitive results of cybernetic or clinical processes:
owever, the information which proceeds backward from
rformance is able to change the general method and
of performance, we have a process which may well
ed learning (p.61)."[3]

ching for value-seeking, reflective thinking and
require both a group setting and clinical teaching.
circumstances surrounding the clinical process for
s and physicians is widely different in day to day
e. Physicians are able to diagnose and prescribe
patient at a time and that patient usually knows
problem and has asked for the appointment. A
must serve as clinician to 35 at a time and those
help most may not know it or may not be willing
to articulate that need.

work of Raths and Simon (1966) has highlighted the

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Brandwein (1969)
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to themselves and o
(Bauer, 1970). To
behavioral style.

Obviously such
and pencil program,
a classroom (Olive

ference between knowing about values and value conflicts actually doing something about them. Taking a stand is ed by them valuing, prizing something enough to act upon

Muessig (1970), Hunt and Metcalf (1971) and others have sed on reflective thinking which is also the key to many ness school courses in management and decision-making. Brandwein (1969) has called the process of being con- ted by differing alternatives and differing values in to define one's own--value-seeking. In each of these process is similar: faced with a problem the child his peers will generate alternatives, note the values ced by each alternative, predict the consequences of and evaluate each according to the value which the idual wishes to enhance the most. Value-seeking be followed by valuing--real or simulated action- to determine whether the predicted and hoped for ts really occurred (Bauer, 1966).

he investigator has outlined both the teacher's role s process as one of confronting the children with urces of their differences and with the consequences mselves and others of the alternatives they choose , 1970). To be able to do this requires clinical oral style.

viously such confrontation cannot happen with a paper- ncil program, but is only real in the interaction of room (Oliver and Shaver, 1966). Children, however,

are not skilled in f

face of a values-con

help them clarify th

privacy, guide them

thinking and confron

recognition of their

their own actions ba

The issue

Each of these th

criptive research; a

not easily use clini

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It is ironic that de

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This kind of objecti

are considered objec

the social studies c

particularly those i

experience, are avoi

versial.

Curriculum supe

education and teache

for in-service trai

ot skilled in forcing themselves to reason in the
of a values-conflict. Only a clinical teacher can
them clarify their own values without probing into
cy, guide them through the logic of reflective
ing and confront them realistically yet fairly with
ition of their own values and the consequences of
own actions based on them.

sue

ch of these three assertions is supported by des-
ve research; and yet teachers in the classroom do
sily use clinical behavioral style and often avoid
lues area for the objectivity of studying about
ins and state capitals and produce of nations.
ironic that dead Americans and live foreigners
sidered by many authors and teachers to be objective.
nd of objectivity is in reality remoteness. They
sidered objective or remote enough to be part of
ial studies classroom. Social issues, however,
larly those issues prevalent in the child's own
nce, are avoided as either irrelevant or contro-

riculum supervisors blame preservice teacher
on and teachers blame the lack of time and money
ervice training.

In 1965, the i
design which would
clinical teaching
area. The guide r
served that functi
the development of
-most school s
in-service ed
-changing teac
requires a pr
support to th
-teachers as a
while doing;
-the teachers
-they need to
are learning
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rationale for
theories of l
actual classr
-diagnosis of
prescriptions
can best be
medical inte

n 1965, the investigator developed a curriculum
n which would give teachers a day by day guide to
cal teaching in social science, including the values
The guide replaced the usual Teacher's Manual but
d that function as well. The assumptions underlying
evelopment of this curriculum design were as follows:
most school systems cannot afford major, continuing
in-service education;
changing teacher behavior from didactic to clinical
requires a practical day by day on-the-job means of
support to the teacher whose behavior is being changed;
teachers as all learners, also learn by doing and
while doing;
the teachers' time is severely limited.
they need to see the immediate relevance of what they
are learning to the success of the daily lesson plan
for the children. Their concern for success in front
of the children is real and must be respected. The
rationale for the clinical curriculum design and the
theories of learning are best interrelated with the
actual classroom program and practice for most teachers.
diagnosis of children's behavior and alternative
prescriptions for tuning the curriculum to the child
can best be taught while teaching is in progress (cf.
edical internship or residency).

The curriculum des

A design was c

in a number of sch

These were done by

could not influenc

responses the foll

were built into th

of corresponding m

curriculum design

A design was developed through formative evaluation
number of school districts throughout the nation.
e were done by the publisher so that the designer
d not influence the responses. Because of these
onses the following twelve dimensions or criteria
built into the design, each with the expectation
corresponding manifestations in teacher behavior.

Criteria for Clinical Behavioral Teaching Style

Input in CAV Teacher's Edition*	Manifestations in Teaching Behavior
	The teacher will:
1. *Behavioral objectives in concept-seeking and value-seeking matched with behavioral evaluations (evaluation experiences to be observed) for each lesson and for each unit.*	1. Use children's overt behavior in a variety of modes as a preferred method for evaluating the success of the curriculum and the child rather than testing for memorization of content, examples with paper and pencil tests.

1. Behavioral objectives in concept-seeking and value-seeking matched with behavioral evaluations (evaluation experiences to be observed) for each lesson and for each unit.

2. Summary of recent research to explain why the concepts were chosen and the content was organized by concept. Continual reminders that the data are selected because they are examples of a concept.

3. Introductory diagnostic experiences related to the conceptual and values focus of each lesson at the child's level of experience.

4. Recommendations for changes in teaching strategy according to children's responses to specific questions or learning activities in the sequence.

The teacher will:

1. Use children's overt behavior in a variety of modes as a preferred method for evaluating the success of the curriculum and the child rather than testing for memorization of content, examples with paper and pencil tests.

2. Check instructional materials (concepts, generalizations and data), judging for validity, significance, generalizability and applicability to the development of the range of children in the particular group.

3. Use relevant diagnostic experiences, make diagnoses about the needs of the individual children in reaching the the objectives.

4. Select or tune his next teaching strategy in the sequence according to the diagnoses toward the objectives.

*The Social Sciences: Concepts and Values, Harcourt Brace Jovanovich, Inc., 1970

5. Use questions which are designed for diagnostic purposes: Where are the children in understanding and attitudes in relation to the objectives.	5. Use of open-ended questions for diagnostic purposes.
6. Questioning strategies which are designed to elicit many relevant responses rather than one correct response.	6. Use of questions to promote generation of relevant multiple responses and alternatives at different cognitive levels.
7. Questioning strategies in relation	7. Change questions or learning experiences

6. Questioning strategies which are designed to elicit many relevant responses rather than one correct response.

7. Questioning strategies in relation to possible and essential responses, following a sequence of cognitive skills toward the formation of concepts from the data in the children's text.

8. Grouping strategies for sharing perceptions, generating alternatives and/or utilizing differences in children's skills.

6. Use of questions to promote generation of relevant multiple responses and alternatives at different cognitive levels.

7. Change questions or learning experiences in order to diagnose causes of hostile, apathetic, tangential and incomplete responses to help channel those children toward objectives effectively.

8. Change sizes and make-up of groups and select as group tasks those in which interaction in groups is more effective than individuals alone in reaching the objectives.

9. *Presentation of problem situations related to the application of the concept at the children's own level of experience (accompanied by question - response strategies).*

10. Presentation of problem situations specifically for diagnosis of children's attitudes, degree of understanding and barriers to

9. *Use problem situations involving differences in values, role-playing techniques and a planned sequence for techniques and a planned sequence for the purpose of training in reflective thinking (or problem-resolving and decision-making).*

10. Use problem situations, role-playing techniques and values discussions for diagnosis of individual attitudes and barriers to understanding and behavior change.

10. Presentation of problem situations specifically for diagnosis of children's attitudes, degree of understanding and barriers to behavior change, particularly in the application of concepts to child-centered experience.

11. Continual presentation within the lesson plans of the need to evaluate whether the curriculum strategies are working effectively toward the specified objectives coupled with alternative learning experiences for different modes of learning and responding geared to the objectives of each unit.

12. Use of new content examples at the end of concept-forming sequences, accompanied by questions and suggestions for application.

thinking (or problem-resolving and decision-making).

10. Use problem situations, role-playing techniques and values discussions for diagnosis of individual attitudes and barriers to understanding and behavior change.

11. Use alternative experiences, especially action-experiences, noting evidence of the need for the selection of such alternatives in order to reach the conceptual, cognitive and affective objectives.

12. Use alternative examples of content as means of testing concepts or reinforcing them by new data.

The questions

Given that clini
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children; and given
have not been able
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ability to transfer
setting; and given
instructional mater
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1. How clinical ar
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3. When teachers u
Edition do char
4. Can these chang
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In addition to
a methodological o
detail in Chapters
5. Can clinical b
level simulati

estions

ven that clinical behavioral style is desirable in
rs and that group value-seeking is desirable for
en; and given that preservice and in-service training
ot been able to guarantee daily support to the teacher
the teacher must often rely solely on his own
to transfer these behaviors to the daily classroom
; and given that there is need for self-correcting
tional materials for teachers, research was needed
answers for these questions:
clinical are teachers' perceptions?
there demographic factors identified in the study
ch bear on a teacher's degree of clinical perception?
n teachers use the curriculum design of the Teacher's
tion do changes in perception occur?
these changes be classified to determine whether
y do or do not relate to the criteria and objectives
the input, i.e. the concept of the clinical curriculum
ign?

addition to these substantive questions there was
dological one which was raised and developed in more
n Chapters II and III:

clinical behavioral perceptions be measured by low
l simulation?

The twelve cri
broken down furthe
Because there were
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this study, the cr
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Overview

The second cha
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underlying the inv
curriculum design.
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the investigation

From a method
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noting their simi
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he twelve criteria for clinical teacher behavior were
n down further into expected changes during the study.
se there were no precedents for establishing predicted
s of progress for each of the short time periods within
study, the criteria were used as ways to quantify and
re such information on types of teachers' perceptions
he degree to which they can be classified as clinical
otions.

iew

e second chapter reviews the results of research
contributed to both the assumptions and the structure
ying the investigator's clinical social science
ulum design. These research findings contributed
basic idea that curriculum needs to be specifically
ed to help teachers to develop clinical teaching
ors as well as to enhance the development of particular
oral objectives in children. Other research on
ns of teachers and the influence of analytical
ons on children's thinking are contrasted with the
t study in an effort to delineate the specific field
erest of the study and to make clear the focus of
vestigation.

m a methodological point of view consideration is
o systematic observation of teaching strategies,
their similarities and differences to those strategies
shed as criteria for clinical behavioral style.

Measurement of tea
questionnaires and
the need to measur
relation to specif
is thought necessa
and dimensions of
and providing supp

The third chap
in designing instr
serve as valid mea
comparing them to
of arranging for t
scoring system are
investigation cond

The pretest an
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graphic data made
research at three
list of the twelve

The focus of
in two modes:

1. How clinical
points in tim
initial impac
a built-in cl
quantified in
clinical beha

surement of teachers' attitudes and uses of both
stionnaires and simulations are considered in light of
need to measure these attitudes as perceptions in
ation to specific clinical criteria. Such measurement
thought necessary for accurate assessment of the size
dimensions of the task of training clinical teachers
providing supportive clinical curriculum designs.
The third chapter outlines the steps that were taken
esigning instruments which, although disguised, would
e as valid means of assessing teachers' perceptions and
aring them to the clinical teaching model. The stages
rranging for the sample and developing a quantitive
ing system are presented as a case study of a field
stigation conducted in nine American school systems.
The pretest and split-half posttest design carried out
hool systems which could provide a variety of demo-
ic data made it possible to effect descriptive
rch at three points in time against a grid or check-
of the twelve clinical criteria.
he focus of the investigation is therefore descriptive
o modes:

ow clinical were teacher's perceptions at these three
oints in time, just before and during the period of
itial impact of a new social science curriculum with
built-in clinical design? These are described and
antified in the framework of the twelve criteria for
inical behavioral style in Chapter IV of this report.

2. What other stat

priorities can

These additiona

of the twelve c

treated in Chap

The final chapt

these descriptive m

research, curriculu

training and assess

What other statements about teachers' perceptions and priorities can we make as a result of this investigation? These additional data and inferences beyond the frame of the twelve clinical criteria drawn from them are treated in Chapter V.

The final chapter summarizes the findings in both of se descriptive modes and suggests directions for continued earch, curriculum design, pre-service and in-service ining and assessment, and personnel policy.

Chapter II rev
strategies, uses o
and group dynamics
of the curriculum
clinical sequence
gave impetus to th
on research on tea
on children. Thes
needed research in
clinical behaviora
about teachers is
the choice of a di
development of sim
perception.

Prior findings

Most of the re
been empirical and
teaching of or for

Investigators
coding of teacher
these, however, h
behind such items
lesson".

Chapter II

RELEVANT RESEARCH

Chapter II reviews relevant research on teaching
tegies, uses of curriculum design, child development
group dynamics which contributed strands to the fabric
he curriculum design. The absence of focus on a total
ical sequence by the studies reviewed in Chapter II
impetus to the present study. This chapter also focuses
esearch on teacher attitudes and the effect of teaching
nildren. These studies, too, delineate the area of
ed research in teachers' perceptions relevant to
ical behavioral teaching style. Methodology for studying
teachers is considered, particularly as rationale for
hoice of a disguised open-ended questionnaire and the
opment of simulations for assessment of teachers'
ption.

findings

ost of the research on clinical behavioral style has
empirical and descriptive, as has the work on the
ing of or for values.
ivestigators have used systematic observation and
of teacher behavior in a number of studies. None of
however, has focused on the detailed behaviors
such items as "uses student responses to carry on the
".

Clinical teaching
performance, but a
which the lesson w
the student respon
standing and to hi
observation do not
diagnoses, prescri
Taba

Perhaps the mo
well as the freque
by Hilda Taba and
staff after her de
questions and stud
coded. However, T
and simulated soci
the teacher in the
studies. The soci
list teacher quest
cognitive levels
labeling, making i
curriculum design
to use clinical be
the questions, re
fashion. The sequ
in anticipating a
values area. Her
area of cognitive

linical teaching behaviors require not only teacher
erformance, but also the perception of the direction in
hich the lesson was designed to move and the diagnosis of
ie student response as clues to barriers to his under-
anding and to his performance. Many statements for
servation do not require perception of hypotheses,
agnoses, prescriptions and continual evaluation.

ba

Perhaps the most detailed recording of the quality as
ll as the frequency of teaching behaviors was initiated
Hilda Taba and carried on by Norman Wallen and the Taba
aff after her death. The cognitive levels of both teacher
stions and student responses were carefully analyzed and
led. However, Taba was not focusing on values discussions
simulated social problem-solving so that the role of
teacher in these experiences does not figure in these
dies. The social studies curriculum she directed did
t teacher questions but usually on a single track of
nitive levels (observing, gathering data, classifying,
eling, making inferences, predicting, etc.). Her daily
riculum design did not deal with the need for the teacher
se clinical behaviors with children who misunderstood
questions, refused to answer or answered in a hostile
ion. The sequence for teachers proceeded without aid
nticipating and dealing with complex responses in the
es area. Her concern was more single-mindedly in the
of cognitive skills.

Taba's work di
relevant to this s
-that most tea
-that children
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teacher at ea
response; and
-that curricul
strategies re
curriculum in

Planned peer group

The need for a
as the setting for
of the child is a
area of his work h
either by Piaget h
upon his theories.

Skills of consensu

Much work has
(particularly in a
making through co
been carried forwa
Shaftel in role-pl
influenced curricu

Taba's work did, however, focus on four major points
evant to this study:

-that most teachers will be teaching in group settings;

-that children in a group can be treated as individuals
through careful questioning strategies;

-that responses to the same question will come at
different levels of depth, breadth and abstraction
from different children and can be accepted by the
teacher at each cognitive level of questioning and
response; and

-that curriculum design should include questioning
strategies relating to reaching the goals of the
curriculum in a group setting.

ied peer group confrontation: Piaget

The need for action-centered, peer group confrontation
e setting for the intellectual and moral development
e child is a factor in the theory of Jean Piaget. This
of his work has not had the benefit of follow-up studies
r by Piaget himself or those whose research is built
his theories.

s of consensus

uch work has been done in social psychology on the need
icularly in a multi-ethnic democracy) for group decision-
through consensus. This work, begun by Lewin, has
arried forward by Lippitt and others. The work of
l in role-playing for social problem-solving has
nced curriculum design, although her approach to the

role of the teache

model.

Curriculum design

The investigat

which the design o

variable and the c

the teacher the de

One study of t

children's ability

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and responses were

each child to answ

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could be used or a

Concerns of teache

One study (Ful

and both a group a

teachers are most

student-teaching a

as the teachers be

le of the teacher does not precisely follow the clinical
del.

rriculum design and behavioral change

The investigator has been unable to locate research in
ich the design of the curriculum was the independent
riable and the classroom behavior and perceptions of
e teacher the dependent variables.

One study of the influence of analytical questions on
ildren's ability to think critically reported no signi-
ant results (Hunkins, 1970). In this case teachers
re deliberately kept from participation; the questions
l responses were handled in a workbook, thereby requiring
h child to answer in writing. This method prevented the
of clinical behaviors, because no teacher was available,
s no one used the responses for diagnosis of misunder-
nding or other need for help. No follow-up strategies
ld be used or alternate experiences planned.

cerns of teachers: measuring them and affecting them

One study (Fuller, 1969) reports a survey of research
both a group and a written test to determine what
chers are most concerned about as they begin their
dent-teaching and to describe how those concerns change
he teachers become increasingly experienced.

A dichotomy wa
concern with pupil
teachers not one e
classified as:

Are pupils lea

How does what

Experienced su
"to focus" on pupi
with personal gain
concerns ... obser
stand pupils' capa
to assess their ga
to pupils' difficu
terms of pupil gai
as an implication
Can changes toward
treatment?"[4] Trea
service courses a
treatment was the

Summary

The research
teachers for "conc
students and of te
areas in which ad
reported in Chapte
perceptions teache

A dichotomy was reported between concern with self and
cern with pupils. In the written test of 29 student-
chers not one expressed a single concern that could be
ssified as:

Are pupils learning?

How does what I do affect their gain?

Experienced superior teachers were reported as seeming
focus" on pupil gain and self-evaluation as contrasted
personal gain and evaluations by others. "The specific
erns ... observed are concerns about ability to under-
d pupils' capacities, to specify objectives for them,
ssess their gain, to partial out one's own contribution
upils' difficulties and gain and to evaluate oneself in
s of pupil gain." The Fuller study raises the question
implication for research, "Are concerns manipulable?
hanges toward concern with pupils be encouraged by
ment?"[4] Treatment in Fuller's case referred to pre-
ce courses at the university level; in this investigation
ment was the use of a clinical curriculum design.

ry

he research reported in this dissertation did not ask
ers for "concerns" but did ask for descriptions of the
nts and of teaching strategies and, in several contexts,
in which adjustments needed to be made. The results
ted in Chapter IV and V indicate what kinds of
otions teachers displayed under a seemingly more open

questioning strate

clinical perceptio

teachers was also

Methodology

Research diffe

Systematic observa

different from att

recognize the diff

practice. Simulat

increasing use in

objective evaluati

Systematic observa

Recent researc

has utilized syste

video-tape and ran

teams of trained

of twenty-six clas

Boyer, 1967) shows

are part of the c

entire cycle in r

objectives of the

discussed below.

The Honigman

Classroom Interac

four categories o

student behaviors

stioning strategy which assumed the importance of
nical perceptions. Age and years of experience of
chers was also explored.

odology

Research differs in methodology depending on the focus.
ematic observation reflects recognition of behaviors as
erent from attitudes. Questionnaires and interviews
gnize the difference between a sense of purpose and a
tice. Simulation, both video-taped and live, has had
easing use in focused observation, often without
ctive evaluation, however.

ematic observation

Recent research aimed at describing teaching strategies
utilized systematic observation through audio-tape,
o-tape and randomized direct observation by two or more
of trained or randomly selected observers. The survey
enty-six classroom observation instruments (Simon and
, 1967) shows several that identify behaviors which
art of the clinical cycle, but none that include the
e cycle in relation to the content and process
tives of the curriculum. Those that seem closest are
ssed below.

he Honigman System [5] (Multidimensional Analysis of
room Interaction) which is based on the Flanders system:
categories of teacher behavior and four of the five
nt behaviors are relevant to the clinical model:

Teacher behaviors:

Uses students'

Uses students'

Solicits (resp

Seeks expansio

Student behaviors:

Gives an "orig

Digresses; giv

Expresses feel

Misbehaves; sh

This last item

this code to the c

behavioral style h

misbehavior, in ad

strategy used is w

The Taba syste

of communication t

serves a specific

It deals with what

communication and

These thought leve

thinking skills ar

ways of diagnosing

measuring clinical

cher behaviors:

Uses students' ideas

Uses students' emotional contributions

Solicits (response optional)

Seeks expansion or elaboration of students' contributions

lent behaviors:

Gives an "original" contribution

Digresses; gives a contextually irrelevant contribution

Expresses feeling (emotions)

Misbehaves; shows hostility

This last item indicates the difficulty in applying code to the clinical model. To teachers with clinical vioral style hostility in the student is not simply havior, in addition, it is a clue that either the egy used is wrong or the original goals need adjustment. The Taba system[6] measures "thought units"--whatever length mmunication that expresses a fairly complete idea and s a specific function. This system is useful in that als with what the teacher and pupils do with each other's nication and also with the thought level of the students. thought levels are related to the major Taba concern-- ing skills and do not allow for the greater variety of of diagnosing a response which would be necessary for ring clinical teaching.

The OS&AR 4V s
does focus on inte
change is defined
something to the t
system codes wheth
something a pupil
supports, approves
pupil's comment.

It would be po
as categories but
as seen in Chapter

Such systemati
most often for tra
service. Only the
of teacher behavio
curriculum. One c
work to the study
the goals of her w
the clinical and c
continually needin
not meet the stati
fore, in its final
"Therefore, in st
a "fixed" factor.
be on logical gro
tical inference (

The OSCAR 4V system of Medley, Impelliteri and Smith[7] oes focus on interchanges as well as statements. An Inter- hange is defined as "an episode in which a pupil says omething to the teacher and the teacher reacts". This ystem codes whether the teacher first responds directly to omething a pupil has said and then whether the teacher pports, approves, criticizes or neutrally rejects the pil's comment.

It would be possible to develop a checklist with these categories but with specific clinical observation items seen in Chapter III.

Such systematic observation checklists have been used st often for training of teachers, pre-service and in- rvice. Only the Taba program has included measurement teacher behavior as part of the evaluation of the rriculum. One of the difficulties in applying Taba's rk to the study described in this dissertation is that goals of her work were cognitive and linear, whereas clinical and cybernetic models are cyclical and tinually needing to be revised. The Taba evaluation did meet the statistical requirement of randomness. There- e, in its final report is the statement:

erefore, in statistical tests teachers were considered fixed" factor. Generalizations to other teachers must on logical grounds rather than on the basis of statis- l inference (p.207)."[8]

The Miller-Hu

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Questionnaire

The use of que

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Loree, (1971)

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behavioral compone

through reinforcem

The Miller-Hughes System[9] deals with teacher
esponsiveness to the pupils' train of thought and may be
elpful in its system of observer reliability procedures,
sing two coders and audiotapescript. The formula for
greement is the proportion of agreement over total
odings of both coders.

uestionnaire

The use of questionnaires to determine the perceptions
subjects is widespread. There is no assumption of a
rrelation between perception and actual classroom practice;
ograms and practices which involve changing teacher
havior need both measures of practice and analyses of
rceptions and attitudes in order to make accurate
agnoses and provide effective presctiptions.

Loree, (1971) has recently reported a survey of research
ch attempts to assess teachers' attitudes or "measure a
ticular property of an attitude". He, too, emphasizes
difference between measuring what teachers report and
ir actual effectiveness. He attributes much of the
lure of a scale such as MTAI to predict teacher behavior
"not really surprising", because "one would expect the
avioral component of an attitude to be strengthened
ough reinforcement".

Loree describe
developing in teac
notes, however, th
to finding ways of
orientation to the
attitudinal object
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Simulation

To date a revi
simulation has dis
teacher training w
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find one such simu
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studies which have
to assess its effe
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In the Cruicks
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supervising teach

Loree described the Michigan State University model for veloping in teachers a clinical behavioral style. He tes, however, that "no research attention has been devoted finding ways of inducing in teachers a scientific ientation to their work....Yet it may be that for certain itudinal objectives in teacher education programs, tructional procedures should be directed toward shaping h the belief and the behavioral components of an attitude."[10]

ulation

To date a review of the literature in educational ulation has disclosed numerous uses of simulation for cher training which imply, of course, that there are terion levels of teacher performance, although they are spelled out with a quantitative or profile system of orting them. The investigator has not been able to d one such simulation to date that has used simulation testing teacher effectiveness using the clinical or other model. The exceptions, of course, are those ies which have used simulation in an experimental way ssess its effect on teacher behavior; some of the rimental simulation studies have used simulations both xperiment and as criterion measure.

In the Cruickshank and Broadbent study, (1969) however, ough teaching was done by simulation, testing was done uestionnaire and interview of beginning teachers and rvising teachers.

Turner and Fatt
problem-solving ski
reading and arithme

Simulation for
both by the O.S.S.
War II and after a
years, particularl
Shell Oil and othe
up by social psych
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to managerial posi

The manager of
program, Mr. D. F.
interview in May,
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Mr. Hoyle also
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The choice of
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and strategies th

Turner and Fattu (1960, 1967) report measurement of
blem-solving skills on simulated teaching tasks in
ding and arithmetic.

Simulation for assessment of personnel has been used
h by the O.S.S. in the selection of spies during World
II and after and by industry during the past fifteen
rs, particularly the Bell System and more recently IBM,
ll Oil and others. These assessment programs were set
by social psychologists and industrial psychologists to
ermine which personnel would be low risks if promoted
anagerial positions.

The manager of the Michigan Bell System's assessment
gram, Mr. D. F. Hoyle, stated to the investigator in an
rview in May, 1970 that Bell had given up systematic
rvation because:

-the observers interacted with the situation.

-it was both expensive and clumsy to put a man in a
job and then to evaluate whether he can do it.

Mr. Hoyle also stated that setting up a laboratory
lation of the actual managerial situation was
venient and observers could not generalize from such
trived setting to the real one and to the real
er-possibilities.

The choice of government and industry has been to
te the behaviors which they feel are part of the skills
trategies they want in their personnel, create limited,

live situations wh
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group situations.

Clinical teaching

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Summary

Several separa
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such development.

Prior studies
been based on mod
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live situations which are not like the real ones but test for those same behaviors in more easily controlled small group situations.

Clinical teaching behaviors

Decision-making behaviors associated with the clinical teaching model have been spelled out by the Learning Systems Institute and by the writer at the time of the development of the curriculum design which became the independent variable in the study. The empirical methodology for the development of the LSI list of behaviors has been explained by Ward, (1967) and provides a specific set of dependent variables.

Summary

Several separate facets of clinical teaching have been the subject of research, particularly questioning strategies for cognitive development, concerns of teachers and teacher-pupil interaction and degree of openness. Much has also been done in theory and in practice to promote the interaction of children in social problem-resolving. Neither of these trends, however, has been combined into research on a unified theory of teaching nor related to the development of clinical teaching or the effect of curriculum design in such development.

Prior studies of teachers' perceptions and behavior have been based on models of teaching that are more limited than the clinical model (e.g. Flanders) or without the dimensions

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med necessary by the investigator for clinical teaching
groups in value-seeking and problem-resolving in the
ial sciences (e.g. Taba).

The idea of systematic observation of teacher-student
eraction and student-student interaction has been devel-
d in many studies but without the dimensions of goal-
ectedness and adjustment of the curriculum on which the
estigator's work has been based. To the investigator's
wledge neither descriptions of clinical teaching
avior nor systematic classroom observation has dealt with
triangular relationship of 1) diagnoses of children's
tudes and concepts, 2) development and selection of
hing-learning strategies and 3) curricular goals which
identical with behavioral goals for the children outside
classroom. It is this triangular relationship in the
al science classroom within a clinical teaching model
is the focus of the investigator's work.

The purpose of the investigator's research has been to
tify perceptions relating to the stages of clinical
hing, particularly in social science, provide reinforce-
through curriculum design rather than through preservice
n-service training and assess those perceptions at three
erent points in time.

The questionnaire used in this study was developed at
earning Systems Institute of Michigan State University
lassroom teachers using a systems analysis approach to

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Chapters IV a
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nalyzing children as input and the teacher as part of the nstructional process. This was considered an appropriate uestionnaire for the purposes of this study because it sts the teacher's perception of his and the curriculum's le in relation to the students' real problems. The llingness of a teacher to accept and use the students sponses are, of course, part of the clinical behavioral yle.

In an effort to control for the rival hypotheses which allenge systematic observation as a valid measure of acher behavior (Hawthorne effect; reactive setting), the thor investigated the use of simulation for assessment personnel. It was beyond the scope of the study to velop and test live simulations or video-taped simulations at could be administered as tests by local school systems der the conditions established as necessary for objectivity d anonymity in a study of perceptions. For these reasons -level case descriptions of teachers' decisions were eloped and used as a possible substitute.

In Chapter III is the description of the methods used the development of both the questionnaire and the ulations. Included also is the case history of the inistration and scoring of the test instruments.

Chapters IV and V describe perceptions according to the lve criteria for clinical teaching behavior and the tribution of clinical perceptions into categories.

Chapter VI pr

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Chapter VI provides summaries and inferences relating teachers' perceptions to the clinical model and assessing the effectiveness of both the questionnaire and the low-level simulations as test instruments for large numbers of teachers over a widely separated area.

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Chapter III dea
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Chapter III

METHODOLOGY AND DESIGN

Chapter III deals with the methodology and design of study. The conditions are described which were deemed essary for effective administration of the tests in ely separated areas of the country within a short span time. Summaries of procedures and timetables for test elopment, administration and scoring to make practicable tinuation and/or replication of the study are included. cussion of the criteria to make possible development of etailed yet objective set of scoring criteria is also forth in this chapter. Several criteria were established the study, based on some assumptions. The assumptions low:

That a national representation should be obtained if possible. In order to maintain control and limit expenditures educational research has often used small local samples in university communities. The concern remains that curriculum research done in this manner does not generalize to the population using such curriculum. Most schools use nationally distributed, published curriculum with no one in the immediate vicinity to control its daily use.

That the nature of on-site evaluation in schools is such that individual teachers could not be isolated

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as part of the study unless the administration and supervision of tests were carried out by the researcher. This would make a random sample possible but might cause contamination because of experimenter bias. School systems vary greatly in preparation and follow-up of the programs they purchase. To have an outside researcher on hand to monitor even an eight-month study could produce either Hawthorne effect and/or contamination.

3. That most teachers would sustain the effort necessary to participate only if they felt it was within their professional role, and that they would not be isolated from their colleagues. No one teacher could be in an on-going experiment without contamination from others in the building who offer their advice and curiosity.

4. That the tests had to be given in each location under similar conditions within a short span of time in order to control for rival hypotheses: such as Hawthorne effect, time, maturation, history, validity, attempts by teachers to block change or promote it by contrived answers.

stablishing criteria and selecting the sample

Most curriculum research is formative and, therefore, s distributed piecemeal and often in mimeographed form to eachers who volunteer to pilot it. The investigator was oncerned that this research be carried out under actual

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conditions of the majority of classrooms, while still providing for efficient administration of the tests. Because of the above assumptions about field conditions, it was decided:

1. Only school systems which had adopted the program (no pilots) would be invited to participate. Pilot teachers may have a vested interest in promoting a program they like or condemning one they do not like. The study needed openness of attitude.
2. The number would be large because the number of test items and hypotheses were sizeable and because it is necessary to plan for the natural attrition in field research.
3. The tests would be administered as officially sanctioned by the superintendent and principals and on agreement by all the teachers in a school, so that the project would be part of the teacher's regular professional responsibilities during regular meeting time. The task was to be a part of the accepted faculty role of the school. All teachers at the approximate grade levels in any one school had to participate at the same time and under the same circumstances.
4. Only those teachers who agreed to use the Teacher's Edition every day they taught social science would be part of the study. It was decided that two sets of items would be added to the posttests which would

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provide a) a self-report on when and how the Teacher's Edition was used and b) what kinds of in-service training the teacher had during the period of the study. These might make possible clearer inferences about teacher attitudes toward the new form of published guide and the usefulness, as well as direction, of the presently most common forms of in-service training.

5. No attempt would be made to provide for ideal conditions or to control conditions within the school system. Whatever conditions prevailed were considered real parts of the environment into which curricula are introduced. The teacher may or may not have had a choice. Texts were adopted probably without that teacher's participation in the decision-making. The school and district had no in-service training prior to the pretest. Other conditions which existed included books arriving late and schools ordering the wrong number, programs beginning weeks late because of autumn testing schedules or the introduction of reading and mathematics first (thereby postponing social science until December or January).

It is of interest to note that one school system was on trike until late autumn but took the pretest prior to the trike vote. Another suffered a serious millage setback hich resulted in a move for less money for curriculum nd staff and more for teachers' salaries. Teachers' morale as reported by the local administrator as at an all-time low.

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6. The task was to be limited to measuring perception in teachers who had no treatment except the Teacher's Edition in levels 3, 4, 5 or 6 of the curriculum. These were the Teacher's Editions which contained all of the input based on the twelve criteria for clinical behavioral style.

The school systems were selected from a list of those who had made adoptions of The Social Sciences: Concepts and Values, Harcourt Brace Jovanovich, 1970. Not all school systems make their decisions to adopt a new text during its first year, yet a study begun after a program has been widely distributed could never include an uncontaminated pretest. This limited the number of available school systems, particularly in the south and far west where adoption is regulated by state calls. Fifteen were selected from both public and parochial schools in a variety of geographical locations, representing urban, suburban, rural and mixed locations. This last category developed as a result of discussion with the school systems; busing for racial integration has also made it impossible to classify some schools by the usual geographical methods for socio-economic status. This was not a true random sample but the mechanics of decision-making, administration and prevention from contamination required the use of whole schools within widely distributed school districts. The problems of sampling were mostly overcome by the large size of the sample.

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Size also made possible a sample generalizable to the nationwide elementary teacher population in regions, socio-economic settings, age, sex, grade level taught and years of experience.

Establishing and maintaining communication with the school systems had to be carefully managed and timed. In order to insure the support of a school system, the Superintendent of Schools must consider participation a worthwhile use of teacher time. In some districts participation must be agreed upon by the Board of Education and/or a central staff member designated as Director of Research.

A personal letter was sent from the director of the curriculum project, who was also a senior executive of research and development for the publishing company. The letter acknowledged the school district's adoption of the curriculum, described the formative evaluation on which the Teacher's Edition was built and requested "you and your staff to participate in a study to gather further information on the usefulness of the Teacher's Edition of Concepts and Values to your teachers". The letter described the conditions for participation and promised anonymity to the teacher, the school and the district and a report on the findings of the whole study to all who participated.

The purpose of the letter was to acquire top level approval of the study and to have the superintendent officially appoint someone to head the project for the

school system. T
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school system. The letter also indicated that all further communication would come from the researcher through Michigan State University. A form (Appendix B) for reply was included which was in the form of a contract to negotiate between the district and the university and indicated who in the district was to be held responsible for the project.

Of the fifteen districts invited to participate, ten responded. Nine (including all the large districts) replied favorably. One small district refused without giving a reason. Five small rural and suburban districts failed to respond. A follow-up letter from the investigator to the person specified by the school system was designed to set up a schedule and mailing list; in every case several long distance telephone calls were necessary to secure this information.

During July and August the test packets were produced, numbered and packed. Because of the difficulty of summer mail distribution in school systems, the packets were shipped right after the Labor Day holiday.

Those school systems to which packets were sent school by school turned out to be a problem. Packets were lost, time was lost and need for continual follow-up by long distance telephone was much greater than with those in which all packets were sent to a central staff administrator who was responsible for distribution, administration

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and collection in his own district. This procedure was followed in all districts for both posttests.

A letter explaining rationale, anonymity and specific procedures went to each designated school administrator. letter explaining rationale and anonymity went in each eacher's packet.

Not one school system or school, large or small, was ble to meet any of its own promised deadlines. Each eadline was set personally by telephone (supervisors are ard to locate and therefore, had to be called person-to-erson). Each time the project leader, usually a Social tudies Supervisor or Director of Elementary Education, as given the reasons for limiting the time period for ccuracy of the research and given three to four weeks ithin which he could set his own deadline. He was then minded by telephone and by mail at least once before the adline. It was necessary in every case for each phase the study to call the local project leader at least ce more to request that the test packets be returned once.

It is important for educational researchers and school stems who increasingly want evidence of research to note at, at best, school systems do not have the internal mmunications systems and long-range implementation chinery necessary for the business-like procedures and solute accuracy necessary to carry out the testing them-lves.

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Instrumentation

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There are large school systems that have their own Research Director, but in the one case in this study in which this was so, distribution and follow-up for returns was ineffective.

Instrumentation

At the time the preliminary pilot locations for validating instrumentation were being arranged, the expanded statements of criteria were developed and refined.

It may be helpful to recall from Chapter I that the following had been accomplished:

. Itemizing the specific inputs of the Teacher's Edition which were designed to produce specific teaching behaviors.

. Matching to each input the predicted manifestations in teaching behavior as criteria for clinical behavioral style. These were stated in behavioral terms without criterion levels of performance. In a pretest-posttest study of the first few months of treatment in a new field of research all that could be predicted for purposes of description and assessment in three points in time was that each teacher would display these behaviors to increasing degrees of frequency or quality.

Clinical criteria were developed and revised several mes. The first revision refined the items by separating e use of diagnostic experiences from diagnostic questioning, ereby providing a more detailed description of what the

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In the second revision the use of problem-situations for diagnostic teaching purposes was separated from the use of problem-situations for student practice in reflective thinking.

Three of the statements describing criteria for teaching behaviors were revised to specify that the behaviors were used for the purpose of reaching the objectives of the curriculum. These revisions reflected the researcher's increasing concern that teachers often perform in approved ways but without any objective in mind. This view was expressed later by W. J. Popham, (1971) and is discussed further in Chapter VI. Asking questions--but what for? Using role-playing--to what end? Varying the lesson plans--why? The predicted behaviors derived from the twelve criteria in this study are in a clinical context, i.e. the teachers should consciously choose their behavior because of recognition of the objectives, careful observation and diagnosis, and purposeful prescriptions selected to help children reach specific observable objectives.

The actual timetable required several simultaneous sequences of operation which obviously cannot be reported simultaneously. Running concurrently during the summer of 1970:

- Developing statements of the behavioral and perceptual changes which would serve as bridges between predicted

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behaviors and perceptions to be assessed through self-reporting instruments.

. Piloting and revising the instruments.

. Corresponding with the school systems.

. Setting up the personnel and precise order of operations at the university.

. Developing a scoring system and selection and training of scorers.

The first task in developing the instrumentation was to ranslate the twelve criteria for clinical behavioral style ito precise predictions about the development of teachers thin the time period of the use of the curriculum design. ese would then become the precise bridges to verbal equi-lents in test instruments which would indicate clinical rception relating to each cluster of clinical behaviors.

Testing for behaviors in actual classrooms or simulated tuations and correlating those behaviors with perceptions ll be a subject for further study. One major question on ich it was hoped that this research might begin to shed ght was whether clinical perceptions accompany or follow lnical teaching practice. The treatment (curriculum sign) presupposes the need to practice and be made aware the clinical rationale as one practices, resulting in nged practice and development of clinical perception.[10]

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Following are the twelve criteria in their final form.
re were originally ten; the decision to revise and split
is described in a brief chronological review following
s list.

otheses about development during the study:

terion 1--Use children's overt behavior for evaluation.

teacher will show:

Increased focus of observation of children in planned situations as the preferred method of evaluation of achievement in social science for report cards, parent conferences, files;

Increased acceptance of a variety of modes of responding, other than written, as valid evidence for evaluation;

Increased recognition of the child's level of experience and response in determining the child's output or response;

Use of observable and replicable behaviors relating to specific goals as evidence for evaluation:

-in situations on the same concept but different from the content examples of the text;

-in situations which use the same concepts and processes that are applicable to the child's own level of emotional and social development and his experience;

Increased time spent teaching children the process of investigation and student-managed learning;

Criterion 1--Use

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terion 1--Use children's overt behavior for evaluation,
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Increased frequency of adjustment of teaching strategies to aid individual children in reaching behavioral goals;

Increased awareness of and activity reflecting role of teacher as active, positive and clinical (diagnostician, prescriber, evaluator) and as responsible for tuning curriculum to help children reach the behavioral goals; and

Increased use of a variety of teaching strategies and awareness of them as goal-directed.

terion 2: Check instructional materials for validity and applicability.

teacher will show:

Increased awareness of the way materials are organized and the rationale of the authors or curriculum developers for doing so;

Increased recognition of the relationship of facts to concept-forming;

Increased use of significant (generalizable to a validated concept) rather than trivial or traditional subject matter;

Increased use of here-and-now examples (e.g. in the community and in the school) for concept-application and concept-testing; and

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riterion 2: Check instructional materials for validity and applicability (cont'd).

Increased learning experiences which are both pleasant for children and applicable to the conceptual goals of the curriculum.

iterion 3: Use relevant diagnostic experiences and make diagnoses.

e teacher will show:

Increased recognition of the need to introduce learning at the child's level of experience;

Increased use of learning experiences for diagnostic purposes;

Increased positive response to differences in children's skills, attitudes and achievements;

Increased acceptance of differences among children; and

Increased expectation of different responses and levels of achievement for any activity.

terion 4: Select or tune next teaching strategy according to diagnoses toward objectives.

teacher will show:

Increased preplanning of alternative teaching strategies;

Criterion 4: Se

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Criterion 5: U

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Criterion 4: Select or tune next teaching strategy according to diagnoses toward objectives (cont'd).

b. Increased use of alternative strategies as the result of diagnosis from previous responses;

c. Increased recognition of the need to evaluate the success of a learning experience by the observable progress of the children toward the objectives; and

d. Increased acceptance of the responsibility of teacher and/or curriculum for the success of children in reaching the objectives.

Criterion 5: Use of open-ended questions for diagnostic purposes.

The teacher will show:

. Increased use of open-ended questions;

. Increased recognition that productive questions produce more than one answer;

. Increased awareness of the need to match questions to specific goals;

. Increased awareness of self as responsible for continuing diagnosis of children's learning patterns; and

. Increased awareness of teacher as personally accepting and responsible for achievement at the same time and with the same teaching strategies.

Criterion 6: Us

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riterion 6: Use of questions to promote generation of relevant multiple responses at different levels.

ıe teacher will show:

Increased recognition of the use of different kinds of questions to produce increasingly complex cognitive levels;

Increased recognition of logical thinking processes and the ways in which concepts are formed and tested; and

Increased ability to recognize a response to a question as evidence of cognitive level.

iterion 7: Change teaching strategies to diagnose causes of particular responses.

e teacher will show:

Increased recognition that children's responses that are not directly related to the objectives are cues for changes in the teaching strategy;

Increased recognition that objectives do not necessarily have to be changed because a teaching strategy failed to produce the desired behavior;

Increased selection or planning of new learning experiences to uncover the causes of observed difficulty with prior learning experiences; and

Increased treatment of each child's progress toward objectives (or lack of it) as data in selecting the necessary variety of alternatives.

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Criterion 9: U

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riterion 8: Change and select groups and group tasks in order to reach objectives more effectively.

ıe teacher will show:

. Increased recognition that group tasks are designed to change individual behavior toward the objectives, not just toward socialization or conformity;

Increased use of groups of different sizes and membership to promote different degrees and kinds of participation; and

Increased use of groups of different sizes and membership for different purposes and tasks best achieved by groups.

iterion 9: Use problem situations for value-seeking, problem-resolving and decision-making.

ə teacher will show:

Increased recognition and use of the classroom as a proper place for training in problem-resolving, decision-making and action-taking;

Increased recognition and use of problem-resolving situations and discussions as a regular part of the social science learning sequence;

Increased awareness of the need for practice in those cognitive levels necessary for problem analysis and problem-resolving;

Criterion 9: Us

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Criterion 10:

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riterion 9: Use problem situations for value-seeking, problem-resolving and decision-making (cont'd).

Increased acceptance of the teacher's responsibility for confronting children with appropriate problems and logical attempts to resolve them; and

Increased use of role-playing for progress toward the objectives rather than solely for socialization or variety.

iterion 10: Use problem situations, role-playing and values discussions for diagnosis of attitudes and barriers to progress in objectives.

e teacher will show:

Increased recognition and acceptance of a variety of approaches and responses by students to any real social problem;

Increased use of problem situations, role-playing and values discussions for finding out what each individual child perceives, what attitudes he holds and what information he uses in deciding what the problem is and how he prefers to resolve it;

Increased recognition that a problem-resolving learning experience has a degree of success if the teacher learns more about a child's barriers to understanding and other objectives; and

Criterion 10:

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Criterion 11:

The teacher wil

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riterion 10: Use problem situations, role-playing and values discussions for diagnosis of attitudes and barriers to progress in objectives (cont'd).

. Increased willingness to let the children compare, contrast and evaluate their differences in actions and in values without the teacher forcing closure or making own value judgments.

riterion 11: Use alternative action experiences to reach objectives.

he teacher will show:

Increased use of action-applications as means of reaching objectives;

Increased recognition that action-experiences are academic teaching-learning strategies in concept-forming and problem-resolving;

Increased recognition of and use of action-experiences in addition to verbalization as evidence of a child's real progress toward the objectives;

Increased recognition of the teacher's role to select alternative strategies to reach the objectives if needed; and

Increased recognition that understanding in one experience may not necessarily mean internalization of objectives in other experiences.

Criterion 12: Use

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The teacher will

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terion 12: Use alternative examples of content to test and reinforce concepts.

teacher will show:

Increased recognition of the need to use added content in the planned conceptual frame of the curriculum;

Increased awareness of concept-forming as hypothesis-forming and concept-application as hypothesis-testing or validating; and

Increased use of new data for reinforcement of concepts rather than memorization of data from previously studied examples.

Verbal equivalents acceptable as evidence were specified each of the twelve criteria prior to the development of instruments. The first attempts to do this resulted tatements about clusters of verbal behaviors relating he teaching behaviors. Some of these seemed to relate ore than one type of predicted behavior and were a clue he need for further revision of the predicted teaching viors.

ction and development of instruments.

The decision was made to use an open-ended questionnaire h would be recognized as relevant to teachers but would artially disguised, in that it would not use clinical uage nor refer in any way to the published curriculum gn. In this way the questionnaire would not be reactive

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suggesting to teachers ways in which they would either well or help or hurt the reputation of the new curriculum. The questionnaire would be used on all subjects, pretest posttest to determine the teacher's perceptions of the ationship of his role to the students' and the curriculum. The responses on these questionnaires would be coded and ssified first according to those categories which represent criteria of the curriculum design for teachers. Other ponses would be sorted to determine the need for other evant descriptive classifications.

A questionnaire was selected that had been developed by Learning Systems Institute of Michigan State University teacher-training. It was designed to help teachers view cation as a learning system. The learning systems approach partner to teaching as clinical practice; analysis and lback are used to tune learning experiences to the needs he child in relation to the objectives of the system. The original questionnaire had major subheads from the bulary of systems theory: Input; Processing; Feedback; uation; Output. These terms were viewed as causing ety and possible hostility in a self-administered rument.

The questions could uncover a scientific perception of teacher's roles, the students and their needs, the goals eaching social studies and the uses of a curriculum.

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Simulations

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The questionnaire items matched (without saying so to the teachers) the phases of clinical teaching: recognizing hypotheses and teaching within these as a framework toward behavioral objectives; diagnosing student needs from a variety of observable student behavioral characteristics; prescribing for those different needs toward the objectives; evaluating observable results and revising prescriptions (still toward the objectives) when evidence warranted it.

The questionnaire followed a teaching sequence rather than a clinical planning sequence. The questions required the teacher (in this order) to focus on his students, himself as a teacher, his goals for the social science curriculum, evaluation of student achievement, his methods of evaluation of curriculum and the child.

Simulations

Low level (i.e. to be read or observed) simulations required the teacher to display degrees of awareness and skill in diagnosing, prescribing and evaluating student responses and teacher decisions relating to the criteria.

One of these simulations, a card-sort task, required reading, the other, a picture task, used a visual mode. Both could be easily administered without special observers.

The whole testing procedure was designed to take no longer than 45 minutes. The instruments were to be self-administered within the school system in small or large groups using time already set aside for curriculum meetings.

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Initial interp

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The format of the card-sort task was drawn from one
ed in pre-service training of teachers in educational
ychology. The investigator wrote the case decision
scriptions, each representing one of the original ten
iteria. Would teachers respond clinically?

The picture task was designed to test teachers for
rbal stereotypes about classroom behavior. The assumption
ing (as in the card-sort task) that teachers who perceived
aching clinically would recognize the need to connect
havior of students and teachers to both hypotheses (or
jectives) and to observable evidence for diagnosis and
aluation of prescribed activity. Specific clusters of
sponses were predicted to be related to each criterion.

Three of the pictures were selected from a large
ortment of unpublished photographs taken by a professional
wspaper photographer of a federally funded summer school
oject. Written releases for use of the photographs were
ained. The fourth photograph was an advertisement for
hildren's encyclopaedia.

tial interpretation of responses to the two simulations

Predictions about the picture task and card-sort task
e originally approached descriptively; interpretations
e attempted of the significance of possible combinations
responses to the specific tasks. The decision had not
been made for dichotomous scoring and the path of
erpretive descriptions operating as predicted verbal

behaviors became

Refining the res

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ehaviors became too muddy to be efficient.

efining the responses

The verbal equivalents to criteria for change during
ie study really needed to be tied to every one of the
ecific possible responses to each of the three tests.
edicting clusters of responses which would be related
criteria needed to be accomplished along with item
ediction of responses to each item of each instrument.

The problem was difficult for the investigator to
agnose and the problem persisted until the verbal equi-
lents were approached backward from the classified verbal
sponses garnered from the preliminary (or pilot) runs of
e instruments. It then became clear that many of the
edicted responses to test items were overlapping more
n one hypothesized teaching behavior.

The investigator then had to specify more precisely to
ch criterion each category of response would relate. The
ision for dichotomous scoring was made at the same time;
s helped by requiring the investigator to refine the
sible responses so that there was no question about
her the scoring or the interpretation of results.
criteria were reviewed to determine, if possible, why
e of the looked-for responses applied to more than one
terion. As a result of this review, the investigator
it two of the ten criteria, leaving the final number

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Planning for da

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could determin

the study at twelve. The first split made using
gnostic experiences and making diagnoses a discrete
m; separated from it was "selecting or tuning the next
ching strategy according to the diagnoses as well as
ard the objectives".

The second change was to separate the use of "alternative
ion experiences for reaching objectives" from "using
ernative examples of content as means of testing or re-
orcing concepts".

The refining of criteria caused fewer test items to
ly to each criterion, but there was an advantage in that
factors that make teaching behavior clinical (by the
estigator's standards) had been clarified.

ching test items to the criteria

The task of determining the verbal equivalents on the
s of each teaching behavior became clear as the
ination of refining the criteria and refining the item
onses for dichotomous scoring made the relationship of
eptions to behaviors and responses to perceptions
ise.

ning for data-processing

Although this account is sequential in form, the project
actually carried out on several concurrent tracks. The
-processing cards had to be mapped out by the investigator
hat the computer programmer and statistical analyst
d determine whether the questions being asked by the

study could ind
it was to be co

Planning th
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Preliminary run

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Scoring

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udy could indeed be answered using the data in the form was to be collected.

Planning the computer cards, refining scoring procedures, aining of scorers, final clarification of criteria and st items and communicating with and organizing the field rt of the study all proceeded at one time.

eliminary runs

There were four pilot or preliminary runs of the stionnaire and the card-sort task, three for the picture k. Revisions of wording were made in the test instruments er the first three runs. Revisions of directions were e during and after the fourth run as well. Appendix C tains descriptions of the preliminary runs.

ring

During and after the preliminary runs the responses of teachers to each item were classified. Every response each item in the questionnaire in the four preliminary s was recorded and classified by type and then compared the criteria for clinical teaching. Other responses ch the teachers had not made, which would reflect ical perception were also classified. These additional onses were identified by the investigator and others had described clinical teaching. (e.g. BSTEP categories rred to in Chapter I).

Those types of responses which are part of clinical hing were classified for scoring only if they were

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ecifically stated in such a way as to show clinical
rception. Many responses in the preliminary runs
dicated teaching strategies which might be used with
without clinical perceptions. These responses did not
ceive a score, e.g. "showing a film strip" was not scored
clinical. "Showing a film strip to illustrate the same
a in a new setting" was scored as clinical. The
estigator determined that it was not enough for a
cher to state that he used a particular learning experi-
e to classify the teacher's perception as clinical.
experience must be seen by the teacher as directed
ard the specific objectives of the curriculum as well.
is not enough to make a diagnosis; what is done next
t be based on that diagnosis.

The responses on the preliminary runs increased the
stigator's concern for clear descriptions of the ways
hich teachers actually perceive what they do. It was
rmined that the scoring would hold strictly to expressed
ical statements. So-called "good teaching practices"
to receive no score unless the statements explicitly
ected clinical perceptions as established by the twelve
eria. The question was raised that teachers' percept-
of why they do what they do may be even more crucial
ctual clinical behavior than previously thought. How
teachers actually perceive their daily actions as
sions in pursuit of objectives based on recognizable
heses?

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Dichotomous sco

Open-ended
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Scores were to
single points;

The key cli
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item correlatio

In order to classify responses by a strictly clinical
rdstick attaching graded or scaled values (e.g. from 1
rough 5) to particular responses was avoided. Some
sponses were much more significant to clinical perception
the subjective view of the investigator, but, in
dition to experimenter bias, it would be extremely
fficult to train other scorers in such subjective
ndards.

hotomous scoring

Open-ended questionnaires can have problems of
iability if the scorers are asked to determine "what
subject might have meant" or to make judgments about
d teaching or degrees of a particular characteristic.
er trying several kinds of scales and different values
weights to items, dichotomous scoring was chosen to
imize subjectivity of scoring--leaving very little
the judgment of the scorers. All items were to be
red as there or not there, 1 or 0. This scoring pro-
re would reduce the number of judgments made by the
ers and, therefore, increase the reliability of the
y. The individual raw scores were expected to be low.
es were to be achieved only by the accumulation of
le points; each identified by an impartial observer.
The key clinical perceptions were approached by more
one question and clusters of questions relating to
of the twelve criteria were identified for inter-
correlation. Each possible scoring point was also

broken down into

to try to underr

perceptions. I

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Following are t

questionnaire.

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for Criterion 3

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classified.

oken down into categories of clinical responses, in order
try to understand more precisely what makes up clinical
rceptions. It was also possible to measure any shift in
phasis that might have occurred within the limited time
riods in which the teachers used the clinical curriculum
sign in social science. The investigator's decisions for
ssifications were checked by several colleagues in
cher training for both clarity and comprehensiveness.
lowing are the scoring criteria established for the
stionnaire. Read the following lists in this manner:
example, IA is the statement from the questionnaire
elf. "Variety" (a.) is the criterion for the scorer.
the three spaces on the questionnaire which the subject
use to respond to this questionnaire item (some used
three allotted spaces and gave three responses, others
se to mention only one or two)--is there more than one
e of characteristic mentioned, for example: are all
characteristics physical or all socio-economic or is
e variety? If there is variety, the scorer gives it
"; if not, the scorer gives it a "0". "C3" indicates
this item is one of the cluster of items that tests
Criterion 3: Uses relevant diagnostic experiences and
s diagnoses. "Categories" indicates the classifications
esponses which are considered clinical in the study.
other responses are not scored and, therefore, not
sified.

Questionnaire:

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estionnaire: Scoring Criteria

1. The most important characteristics of my students:

   a. Variety--more than 1 kind of characteristic C3

   b. Observable--for each item, evidence stated as behavior rather than a hunch or a feeling or generalized description C1

   c. Categories

      1. Socio-economic background C3
      2. Child's attitude toward himself C3
      3. Child's motivation C3
      4. Intellectual behavior C3
      5. Behavior displaying emotion C3
      6. Behavior toward others C3
      7. Specific learning skills C3

   d. Not mentioned - physical without behavioral results (e.g. race, size) C3

   e. Not mentioned - behavior seen only as a disciplinary problem C1

There were three spaces allotted to this item on the questionnaire, i.e. a teacher could choose to mention as many as three "important characteristics of my students".

Questionnaire:

I.B. In what wa

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7. Skill

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tionnaire: Scoring Criteria

In what ways are you trying to change your students?

1.	Cognitive goals	C6
2.	Effective use of information in solving problems	C9
3.	Improved skills of social interaction	C8
4.	Motivational goals	C7
5.	Self-concept goals	C7
6.	Independent learner with new ideas	C7
7.	Skilled in process of investigation	C1
8.	Effective handling of values differences (Not just "communicates"or "discusses")	C9

There were four spaces for responses allotted to this item (I.B.) on the questionnaire.

Questionnaire:

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tionnaire: Scoring Criteria

The particular factors in my students that require special accommodation or adjustment of my teaching procedure:

a. Variety--more than 1 kind of characteristic C3

b. Observable--for each item, evidence stated as behavior rather than a hunch or a feeling or generalized description. C1

c. Categories

1. Socio-economic beckground C3
2. Child's attitude toward himself C3
3. Child's motivation C3
4. Intellectual behavior C3
5. Behavior displaying emotion C3
6. Behavior toward others C3
7. Specific learning skills C3

d. Not mentioned - physical without behavioral result (e.g. race, size). C1

e. Not mentioned - behavior seen only as a disciplinary problem. C1

f. Did not miss the point of "adjustment" C4

There were four spaces for responses allotted to to this item (I.C.) on the questionnaire.

Questionnaire:

II.A. Key fact

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tionnaire: Scoring Criteria

. Key factors in the instructional environment I control:

1.	Questions for diagnosis	C5
2.	Questions for thinking skills	C6
3.	Grouping of children	C8
4.	Adjusting the materials to the child or children	C2
5.	Selecting lesson ideas or experiences to meet the needs of the child or children	C4
6.	Using other content examples to reinforce or test concepts or main ideas (Not just "hold discussions")	C12

There were four spaces for responses allotted to this item (II.A.) on the questionnaire.

Questionnaire:

II.B. Resources

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onnaire: Scoring Criteria

Resources that I use with my students in social studies or social sciences:

1.	Other materials which present data for achieving same goals or for testing or reinforcing concepts.	C2
2.	Action opportunities to gather data or illustrate concepts	C11
3.	Children seen as resources for each other	C8
4.	Parents and/or community	C11
5.	The child's own experiences	C11
6.	Older children	C11
7.	Other teachers	C11
8.	Teacher's own questions and/or understanding	C6
9.	Teacher's Edition of Concepts and Values (Not just "film strips")	C5

There were four spaces for responses allotted to this item (II.B.) on the questionnaire.

Questionnaire: S

II.C. What I att

1. Goal-s
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nnaire: Scoring Criteria

What I attempt to be:

1.	Goal-setter	C1
2.	Diagnostic	C3
3.	Questioner	C5
4.	Prescriber for differences	C4
5.	Evaluator of progress	C1
6.	Personally warm, friendly, accepting, etc.	C7
7.	Encourager	C4
8.	Guide in problem-solving and values discussion	C9
9.	Manager of role-playing, problem situations to help children overcome barriers to change	C10
0.	Not mentioned - authoritarian, disciplinarian (Not just "guide to learning on their own".)	

There were four responses allotted to this item (II.C.) on the questionnaire.

Questionnaire:

II.D. Ways in

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ionnaire: Scoring Criteria

Ways in which my teaching is adjusted to the particular characteristics of my students:

1. Connects teaching strategy to characteristics of students. For each item. C4
2. Lists more than one teaching method of reaching goals. C4
3. Lists a technique for diagnosis or mentions the need to diagnose. C3
4. Uses group work for a purpose linked to characteristics of students. C8
5. Uses alternative experiences to help children reach objectives. C11

There were three responses allotted to this item (II.D.) on the questionnaire.

Questionnaire:

III. Specific
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(III)

onnaire: Scoring Criteria

Specific adjustments that should be made in my teaching in order to make it more apt to reach the goals.

1.	Need for more diagnostic questioning to find reasons for differences among children.	C5
2.	Need for more diagnostic experiences to find reasons for differences among children.	C3
3.	Need to diagnose causes of hostility, apathy and lack of motivation.	C7
4.	Need for more action-experiences for children.	C11
5.	Need for more role-play and values discussion to diagnose barriers to change.	C10
6.	Need for more flexibility or variety in teaching-planning.	C11
7.	Need to use new content for testing, applying and reinforcing concepts.	C12
8.	Need for more individualized behavioral evaluation.	C1
9.	Need for less teacher-forcing of students.	C7

There were three responses allotted to this item (III) on the questionnaire.

Questionnaire:

IV. The goal

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c. Resu

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onnaire: Scoring Criteria

The goals in social sciences--results

a.	Goal is observable behavior	C1
b.	Result matches the goal	C1
c.	Result is observable behavior	C1
d.	Categories of goals	
	1. Cognitive	C6
	2. Effective use of information in solving problems	C9
	3. Improved skills of social interaction	C8
	4. Motivational goals	C7
	5. Self-concept goals	C7
	6. Independent learner with new ideas	C7
	7. Skilled in process of investigation	C1
	8. Effective handling of values differences.	C9

There were six pairs of responses allotted to this item (IV) on the questionnaire.

Questionnaire:

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(V.A.)

onnaire: Scoring Criteria

What evidence do I use for evaluation of the success of the curriculum and each child?

1. Item describes behavior	C1
2. Uses observation	C1
3. Curriculum goals mentioned	C2
4. Relates behavior to academic goals	C1
5. Gives new opportunities for use of learnings.	C1
6. Diagnostic questions	C5

There were three responses allotted to this item (V.A.) on the questionnaire.

Questionnaire:

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(V.B.)

naire: Scoring Criteria

Which real outcomes in the children fall short
of my goals in social studies or social science?

. Item connects social science learning to behavior of children. For each item. C1

. Categories

1.	Cognitive goals	C6
2.	Effective use of information in solving problems.	C9
3.	Improved skills of social interaction	C8
4.	Motivational goals	C7
5.	Self-concept goals	C7
6.	Independent learner with new ideas	C7
7.	Skilled in process of investigation	C1
8.	Effective handling of values differences.	C9

---

here were three responses allotted to this item
N.B.) on the questionnaire.

Selecting scorers

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Training scorers

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Materials used
Learning System

scorers

achers and former teachers were ruled out as possible
ecause they are thought to have too many preconceived
bout the meaning of terminology and too many value
about "good" and "bad" teaching practice.
dergraduates were employed as scorers because of
y hiring policy. One of the two sophomores selected
to be a teacher and had had the introductory educational
y course; the other was in Interior Design with no
nterest or training in educational principles or

scorers

e scorers were told the purpose of the curriculum
d the rationale behind the design of the instruments.
ie time was spent on this beyond motivating them
n important part of an ongoing group effort. It was
that they did not try to become experts in judging
but that they would only know enough to observe
match them to the score sheet and record a yes (1)
for each item and then categorize the "yes" responses
stionnaire according to the descriptive classifi-
lowed for the appropriate questionnaire items.
scorers were first trained in being able to
h behavioral from non-behavioral statements.
used for this were developed by members of the
ystems Institute for an undergraduate course in

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Analysis

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ıal psychology (Henderson, 1971). The first training
ıeld in November resulted in adjustments in the
of the scoring sheets so that criteria were more
The most difficult point to transmit to the
as the importance of judging just what the response
stated and not reading into the response what
e been meant by it.
separate session of this kind was held with each
ter each had completed five sets of instruments.
rs exchanged instruments and checked for inter-
liability after every fifth instrument. Every
trument was also checked by the investigator. On
check reliability was .82 to .93 on the pretest.
t checks of the pretest ranged from .91 to .98.
the first posttest the scorers showed need of
. They were slipping into judging whether teachers
tive in their attitudes rather than clinical in
onses. Maintaining scorer motivation and con-
hen it is needed intensively at three widely
times in the year is difficult. Reliability of
onnaire, which had been the investigator's greatest
as .98 at the time of scoring of the first posttest.

data on the twelve criteria were reported for the
c categories described earlier in this chapter.
gories were determined to be the most crucial to

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ign of curriculum materials for teachers, in-service
-training and implementation of new curricula.
The design originally was to be a simple pre-and
t design accomplished in September and May. The
was altered to include a split half posttest to
for possible Hawthorne effect; the expectation of
in perceptions from September to January was obviously
. The split was made by random selection of the
systems as random selection of individual teachers
roduce insurmountable difficulties in controlling for
ation. This study examined the pre-and first post-
sults; the second posttest results, which were not
nd processed for the computer until mid-August,
luded in Appendix E and will be part of a continuing
.

he data were analyzed in four ways. Tetrachoric
em correlations were used to determine if responses
items grouped along the a priori clusters as pre-
y the investigator. Factor analysis was not possible
84 x 84 questionnaire matrix using dichotomous

orrelation matrices among the two simulations and
tionnaire scores were computed to determine the
ss of the card-sort and picture tasks as possible
tes for the questionnaire in future clinical testing
ers.

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Summary

Criteria
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An analysis of variance was employed to determine if
was a difference among demographic categories relative
ir clinical perceptions.

Percentage counts were determined to explicate the
bution of the teachers' perceptions (non-clinical and
al) in the sample. Percentage counts by category
lso computed for all clinical responses. The percentage
on any one item were also calculated as the average
number of responses which could be mentioned by
rs on each of the open-ended questionnaire items.

The computer was programmed to calculate group scores
rst mentioned responses, second mentioned responses,
each possible mentioned response was scored separately.
porting of overall percentage shift, averages were used
he assumption that a highly clinical teacher would be
o think of more than one clinical response to a
on.

y

Criteria were established for selection of the sample
ministration of the tests. A large sample was selected
set the decision to use whole school faculties instead
domly selected individual teachers and in anticipation
ural attrition in the total number of test subjects.
des of school personnel toward research, relationships
teachers and rigid calendars in school systems were

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sidered in setting up requirements for uniform meetings
widely separated school districts within a short span
time. Only schools which had adopted the curriculum,
Social Sciences: Concepts and Values were selected
the study in order to avoid any of the rival hypotheses
endant upon evaluation of a pilot project. Schools
e selected which had had no in-service training prior
the pretest.

The size of the school systems and the variation in
ir teacher population made it possible to secure demo-
phic data relating to regions, socio-economic settings,
sex, grade level taught and years of teaching
rience. In this way it would be possible to determine
the teachers' degree of clinical perception correlated
any of these demographic factors. This information
ld be helpful to pre-service and in-service trainers,
iculum designers and personnel policies of school
nistrators interested in balanced staffs and staff
lopment.

Criteria for clinical behavioral teaching style were
loped and refined, resulting in twelve discrete
acteristics. From these criteria hypotheses about
ges in teachers' behavior during the study were
ved; test items were developed which would measure
eptions to match the hypothesized behaviors. There
three tests:

pen-ended disguised questionnaire which asked for
criptions of students, of teaching and of goals for

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card-sort task which required teachers to judge ten
ching decisions. Each card-sort decision matched a
ferent criterion for clinical behavior.
icture task which required teachers to decide which
ectives applied to each of the four pictured class-
m situations and which could not be determined by the
tured evidence. The decisions were matched to some
the criteria for clinical behavior.
The card-sort and picture tasks were low level
lations; scores on these were to be correlated with the
tionnaire scores to determine the usefulness of these
s as a fast and easy way to assess clinical perceptions.
The scoring procedures involved determining what
onses would be considered clinical and developing check-
s of objective items for impartial observers to use in
otomous scoring of each mentioned response as clinical
ot clinical. Each clinical response was to be classi-
according to predetermined categories. Each of these
ble clinical responses was coded to one of the twelve
ria for clinical behavioral style. In this way the
as bridged between clinical teaching behaviors which
not being measured in this study and degrees of
cal perception relating to those behaviors which
being measured.

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The data on each of the twelve criteria were reported
the demographic categories of age, sex, school district,
rs of teaching experience and grade level taught. The
stionnaire data were analyzed by tetrachoric inter-item
relations, analyses of variance, percentage counts and
fts from pre- to posttest. Correlation matrices among
two simulations and the questionnaire scores were
puted to determine their usefulness as substitutes for
questionnaire.

The timetable before the school year involved develop-
and four preliminary runs of the instruments, communi-
ion with several levels of school personnel and distri-
ion of test packets. The pretest was given late
ember, the first posttest in late January in half the
ol systems and late April in the other half.

Chapter IV
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Chapter IV

RESULTS AND DISCUSSION

hapter IV presents data from the pretest and first
est only. Reported are results of the tests for
endence of items relating to the twelve criteria for
cal behavioral style. Information on use of the
er's Edition of The Social Sciences: Concepts and
s and on in-service training are also included. The
section of this chapter deals only with data relating
iteria 1, 2, 4, 5 and 12 of the period from pre- to
est 1; these were the clusters of items in which the
sis of variance scores for the first posttest were
to be significant at a level of .05. The fourth
on presents mean scores by category for the demographic
s and the direction of the shift in their scores from
to posttest 1. The fifth section of the chapter
its inter-item correlations from the pretest and
posttest which were reported at approximately .68 or
. Similar data from the second posttest are found in
lix E and will be the subject of a continuing study.
st section reports correlations among totals on the
instruments, the questionnaire and the two low-level
tions.

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e test items on teachers' perceptions were coded to
elve criteria for clinical behavioral style.

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e twelve clusters of items were found to be independent
ne another as the correlations between them never ex-
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of the Teacher's Edition during the study.

In order to control for the possibility that teachers
d not use the Teacher's Edition, items were included
ne posttest relating to this point.

It is noteworthy that there would be no reason for
ers to falsify their reports on use of the Teacher's
ion because they were to receive no special credit for
so, as they had been guaranteed anonymity and the
culum already had been adopted. If teachers were
py with the program, they might have used these items
mplain while remaining protected, by asserting that
never used the Teacher's Edition and, therefore,
it unnecessary or useless.

he teachers were given a multiple-choice item relating
w often they used the Teacher's Edition of Concepts
alues. The numeral 1 indicated that it was used
iay; 2, that it was used almost every day; 3, half the
4, less than half the days; 5, never. The mean for
tem on posttest 1 (given in late January) was 2.08,
ttest 2 (given in late April) it was 2.05. Teachers,
ore did report regular and frequent use of the
r's Edition.

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On the items which asked when the Teacher's Edition was
ed, dichotomous scoring was employed for each of the three
oices and teachers could choose as many as they wished.
e mean scores on each of these was: before teaching 0.887;
osttest 1) and 0.86 (posttest 2); while teaching 0.789
osttest 1), and 0.746 (posttest 2); after teaching 0.443
osttest 1), and 0.354 (posttest 2).

These mean scores for the two posttests indicated that
e inquiry into perceptions of teachers was, as planned,
e. describing perceptions of regular users of the
inical social science curriculum.

-service training

The posttests also asked teachers if they had had any
five types of in-service training between the pretest
i the posttest. The mean score (out of a possible 1.00
l, therefore to be read as percentages) for at least one
versity course in new social studies was 0.203 on the
st posttest and 0.202 on the second; for one workshop
presentation by a consultant from the publishing company,
46; for posttest 1 and 0.493 for posttest 2; for a
sentation by one of the authors, 0.135 for posttest 1
0.354 for posttest 2; for a workshop given by their own
ool or school system on new social studies in general,
72 for posttest 1 and 0.2025 for posttest 2; for a school
system-sponsored workshop specifically on The Social
nces: Concepts and Values curriculum, 0.270 for posttest 1
0.2025 for posttest 2.

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Certainly teachers who used this program received very
ttle outside help during the study beyond the single
pearance of a consultant from the publisher. It can be
ferred that any changes in perception were not the
sult of special training between pretest and posttest.
is provides an additional insight into the burden of
plementation of a new curriculum. Compared to all
ner professional agencies responsible for updating
achers' skills in social studies or social science, the
olisher in this case had assumed more of the responsibility
n the school systems or the postgraduate departments of
universities.

a relating to the statistically significant criteria

This section of Chapter IV deals with the data on
teria 1, 2, 4, 5 and 12 in which an analysis of variance
the difference scores were found to be significant at a
el of .05. These data were generated according to demo-
phic categories and are reported in Appendix D.

For each of the questionnaire items (see Appendix A)
chers were given space for several possible responses.
open-ended questionnaire items were designed to find
what teachers perceived without structuring their
nking or giving clues to the clinical model. This was,
the investigator's knowledge, the first descriptive
earch of this kind and care was taken to avoid check-
ts or attitudinal scales which made a priori judgments
ut what the teachers might be thinking.

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Each response mentioned by a subject was scored separately. For example, if the questionnaire asked the teacher "What I attempt to be" and gave the teacher three spaces in which to respond to that item, each mentioned response was compared with the clinical classifications established by the investigator and given only to the scorers. If it fit one of those classifications it was given first a "1" for being on the clinical list, and then the specific classification number (from the scoring sheet) was recorded separately.

The computer was programmed to report frequency and what percentage of the teachers taking the test scored "0" (i.e. a non-clinical response or no response at all) and what percent scored ("1"). Of those who scored ("1") the computer also reported what percentage chose which clinical classification.

These percentages of the total group taking the test are reported in the following tables according to the order of the response, e.g. percentage of all first mentioned responses (those recorded in the first space allotted to that questionnaire item), then the percentage of responses recorded in the second space, etc. If no responses were recorded in that space for that category by any teacher, is noted by N.R.

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It is important to note that the teachers were not asked to list their responses in preferential order or to number them in order of importance or told that the more responses they gave the better it would be. These percentages are recorded and reported in the order in which teachers thought of them, which is not the same as a preferred first choice.

Chi-square tests were made on individual data of those teachers who took both tests, whereas the percentages represent group scores of all the teachers who took that particular test. To observe the direction of shift, the percentages for each response should be noted, i.e. compare "mentioned in the first place" for the pretest to "mentioned in the first place" for the posttest.

A composite average percentage shift is also given, primarily to record overall movement from pre- to posttest either in the direction of clinical perception (✓) or away from it (-). In most cases this is lower than the percentage shift of first mentioned responses but is included to give a simplified check on direction of the shift. No responses (N.R.) are averaged as non-clinical.

Upon using the chi-square test of homogeneity, one found all the shifts reported here from pretest to posttest to be significant at the .05 level. That is to say the way one responded is related to the times he took the test (pre and post). In some cases on questions on which

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Criterion 1:

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teachers were allotted three to six opportunities to respond, the percentage shift on one of the opportunities to respond was not significant but the others were. In such cases those responses (first mentioned, second mentioned, etc.) in which the shift from pretest to that posttest was found to be nonsignificant are noted by an asterisk. All other choices not so marked were significant at .05 level. This provides additional data on the rank order of teachers' perceptions in relation to percentage shifts from pre- to posttest, e.g. which of a teacher's responses is most likely to reflect the times he took the test?

Criterion 1: Using overt behavior as evaluation.

The following subtopics are classifications developed for scoring purposes by the investigator:

Behavior in relation to discipline

To a clinical teacher verbal responses and overt behavior are perceived as diagnostic data and/or feedback. Such a teacher would, therefore, not describe a child's behavior as simply a discipline problem. Most of the teachers in the study did not see behavior simply in the narrow context of discipline and control.

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TABLE 1: Chara

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94.10%	5.9

TABLE 2: Adju

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Responses Ful Clinical Crit	
Yes	
93.82%	6.

During the first 3 months of this study on the two items irectly related to this factor the percentage increased .89% on the item relating to "the most important character- stics of my students" and 3.17% on the item relating to factors in the students requiring adjustments in my teaching".

ABLE 1: Characteristics of Students: Behavior Not seen Only As Discipline Problem.

Pretest		Posttest 1	
Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
94.10%	5.90%	96.99%	2.26%

Average change: ≠ 2.89%

BLE 2: Adjustment of Teaching: Behavior Not Seen Only As Discipline Problem.

Pretest		Posttest 1	
esponses Fulfilled linical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
3.82%	6.18%	96.99%	3.01%

Average change: ≠ 3.17%

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92.13%	7.

Perception of physical characteristics of students in relation to behavior.

In clinical teaching it is important to avoid stereotyping students, particularly avoiding the assumption that child's physical characteristics (e.g. that he is large or his age, or that he is black) are evidence of his ability o perform or characteristic of the way he performs.

Most teachers did not use the physical characteristics f the children as description without attaching to such haracteristics what they felt were behaviors resulting from r correlated to them e.g. "little and unable to sit still or long".

During the first three monthe of this study on the single em relating to this factor the percentage of those not ing physical characteristics alone increased 3.36%.

BLE 3: Not Describe Physical Characteristics Without Behavioral Result

Pretest		Posttest 1	
esponses Fulfilled linical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
2.13%	7.87%	95.49%	4.51%

Average change: ≠ 3.36%

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Describing observable student behavior

In clinical teaching it is important to maintain continually the roles of observer and evaluator. This study, therefore, focused on teachers' ability to describe students' behavior in observable terms in each of the phases of the clinical process.

The first of these dealt with factors in students which require the teacher to make adjustments in his teaching. The phase of teaching is on-going diagnosis and evaluation of a prescribed teaching strategy. What percentage of teachers described factors that are observable?

TABLE 4: Factors in Students Requiring Adjustment

	Pretest		Posttest 1	
	Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
1st mentioned	53.37%	46.35%	69.17%	30.08%
2nd mentioned	37.64	62.36	54.89	45.11
3rd mentioned	27.25	72.75	35.34	64.66
4th mentioned	12.92	87.08	19.55	80.45

Composite average change: ⁄ 11.94%

On the pretest the average percentage on four possible chances to respond was 32.80%. On the first posttest the average was 44.74%. Although less than half of the teachers

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responded in a clinical manner, there was an 11.94% increase in the number of teachers doing so between the pretest and first posttest.

The phase of clinical behavior which either sets curriculum goals based on specific hypotheses or recognizes goals of a curriculum also requires a teacher to perceive observable behavior of students. Clinical teaching assumes that the goals of teaching are changed behavior in students.

A clinical teacher should set or recognize behavior as the goal of the curriculum, in this case social science.

An average of only 9.5% on the pretest and 12% on the first posttest of the teachers were able to express their goals for social studies or social science as observable behavior. They were given six opportunities to do so. The composite average percentage increase from pretest to posttest 1 was 2.5%.

TABLE 5: Goals in Social Science are Observable Behavior

	Pretest		Posttest 1	
	Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
1st mentioned	12.64%	87.36%	18.80%	81.20%
2nd mentioned	14.33	85.67	21.05	78.95
3rd mentioned	10.96	89.04	10.53	89.47
4th mentioned	6.74	93.26	11.28	88.72
5th mentioned	7.02	92.98	7.52	92.48
6th mentioned	5.34	94.66	3.01	96.99

Composite average change: ≠ 2.5%

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It seems noteworthy that the clinical perception of eachers in relationship to the curriculum on this point f observability is so much less than in relation to the ay to day adjustments teachers make. According to this uestionnaire item, 88% of the teachers did not perceive ocial studies curriculum goals as observable behavior.

The observation on teachers' perception of curriculum s reinforced by the responses to the questionnaire item n what results are ordinarily obtained for each of the pecified goals of social studies. The composite average ercentage of teachers who described results as observable ehavior was extremely close to the composite average ercentage described above as observable behavior in goals. here is also similarity in the 3% composite average ercentage increase in the case of perceiving observable esults.

ABLE 6: Social Science Result is Observable Behavior

	Pretest		Posttest 1	
	Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
st mentioned	15.45%	84.55%	31.58%*	68.42%
nd mentioned	14.89	85.11	20.30*	78.95
rd mentioned	9.27	90.73	13.53	86.47
th mentioned	7.02	92.98	5.26	93.98
th mentioned	4.49	95.51	2.26	97.74
th mentioned	3.93	96.07	0.75	99.25

ercentage change of first and second mentioned responses rom pretest to posttest 1 was nonsignificant.

Composite average change: $\nearrow$ 3.0%

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When teachers were asked for the evidence they used in valuating the success of students and of the curriculum, ney almost all focused their responses on evaluating the tudents. This focus was evident from reading the actual est instruments.

The data on this item were scored both for describing ehavior and for using observation as a technique for valuation. These are two approaches to the same clinical eaching strategy of observing for overt evidence of ehavioral change or response. The two ways of scoring ere designed to give teachers full credit for evaluation y observation, whether they worded it according to what hey saw or what they did.

The results of the two ways of scoring this item were ery different from each other, both in total percentage f teachers and in the shift from pre- to posttest. When escribing the students' behavior, the average percentage ncrease was 16%, from a pretest percentage of 44% of the eachers to a posttest percentage of 60%. A great percentage escribed observation as a technique they used for evaluation, ut the shift from a pretest percentage of 89.61% to a post- est percentage of 87.22% was a negative shift of -2.39%. lthough there was such a high percentage to begin with, he difficulty in helping other teachers to begin to see emselves as observers is clear.

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TABLE 8: Ev
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An interesting point is the great difference between teachers' perception of themselves as users of observation for evaluation and the much smaller percentage who describe observable behavior when they are asked for evidence used to evaluate students. Analysis of the way a teacher evaluates students may be a major key to determining how clinical a teacher's perceptions, and even his behavior, have become. It is also a clue to the way in which a teacher perceives or uses a clinical curriculum design. It may be possible to undo much of the improvement in behavior a clinical program hopes to accomplish by evaluating students in a nonclinical way.

TABLE 7: Evidence for Evaluation: Describing Behavior

	Pretest Responses Fulfilled Clinical Criterion?		Posttest 1 Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
1st mentioned	54.49%	45.51%	75.94%*	24.06%
2nd mentioned	44.38	55.62	60.15	39.85
3rd mentioned	32.87	67.13	43.61	56.39

*Percentage change on first mentioned response was nonsignificant.

Composite average change: ≠ 16.0%

TABLE 8: Evidence for Evaluation: Uses Observation as a Technique.

Pretest Responses Fulfilled Clinical Criterion?		Posttest 1 Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
89.61%	10.39%	87.22%	12.78%

Composite average change: -2.39%

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TABLE 9: Ch

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Behavioral goals and hypotheses: students as skilled investigators.

In this first phase of clinical perception it is important to discover whether teachers recognize behavior as goals and whether they realize that to evaluate students and the curriculum, the students must be given continuing opportunities to display that behavior.

One of the categories for which teachers could score in relation to this hypothesis was in answer to the question, "In what ways are you trying to change your students?" In the total percentage of those responding this was not a high priority item.

TABLE 9: Changing Students: Skilled in the Process of Investigation.

	Pretest	Posttest 1
1st mentioned	2.25%	4.51%
2nd mentioned	1.69	1.50
3rd mentioned	0.84	N.R.
4th mentioned	0.28	0.75

Composite average change: ≠ 0.42%

Very few teachers recognized social science as a scientific or inquiry type of school subject. Behavioral objectives and behavioral evaluation by observation have a long way to go with teachers who do not perceive the need

for investigative skills in the study of man.

In the professional literature "inquiry" and "discovery", "independent study" and "research" seem to be long-established values. In this study, given free rein to cite their goals for students, these teachers did not reflect that priority during the time period before the first posttest.

This same category was possible as a way of scoring clinically on two other questionnaire items. The rank order and percentage of total subjects were similarly low in answer to the question: "What are your goals in social studies?"

TABLE 10: Social Studies Goals: Skilled in the Process of Investigation.

	Pretest	Posttest 1
st mentioned	1.97%	2.26%
nd mentioned	1.40	2.26
rd mentioned	1.69	2.26
th mentioned	0.56	N.R.
th mentioned	1.40	N.R.
th mentioned	N.R.	N.R.

Composite average change: -0.04%

Even when teachers were asked for "which outcomes in ne children fall short of my goals in social studies or ocial science?", those who scored clinically chose other linical categories.

Skilled in the process of investigation barely received attention at all:

TABLE 11: Disappointing Outcomes in the Children: Skilled in the Process of Investigation.

	Pretest	Posttest 1
1st mentioned	0.56%	0.75%
2nd mentioned	0.84	N.R.
3rd mentioned	N.R.	N.R.

Composite average change: -0.22%

Connecting learning to behavior and to academic goals.

There is a triangle within the clinical teaching strategy: the child, subject matter and newly-learned behaviors. Many teachers, however, do not perceive the subject matter as a vehicle toward new behavioral goals; the subject matter becomes a goal in itself. Three items on the questionnaire were related to this triangular perception. In answer to the question, "which real outcomes in social science fall short of my goals?":

TABLE 12: Teacher Connects Learning to Behavior.

	Pretest Responses Fulfilled Clinical Criterion?		Posttest 1 Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
1st mentioned	9.83%	90.17%	35.34%	64.66%
2nd mentioned	4.49	95.51	18.80	81.20
3rd mentioned	2.81	97.19	8.27*	91.73

*Percentage change of 3rd mentioned responses from pretest to posttest was nonsignificant.

Composite average change: ≠ 16.0%

Although the percentage shift on the third choice was nonsignificant, the shift of the two choices that were significant was sizeable. When reporting anonymously about lack of achievement, the statements of teachers are increasingly behavioral; although 84% of the teachers do not link social science learning to behavior, even within this more comfortable questioning framework.

When this same triangular relationship was pursued from the point of view of another question, i.e. "what evidence do I use for evaluation of the success of the curriculum and each child?", only 13.53% of the teachers on the first posttest received a clinical score for relating behavior to academic goals.

If most teachers do not evaluate students with academic goals related to behavior, then do they at least evaluate them by "giving them new opportunities for use of learnings"? Piaget and Bruner have long written of ability to transfer to new situations as a sign of cognitive development. In mathematics and reading children are always tested with new examples of content. Between the pretest and posttest the percentage of teachers scoring on this item more than doubled; ninety percent of the teachers, however, failed to score.

TABLE 13: Evaluation in New Situations.

Pretest		Posttest 1	
Responses Fulfilled Clinical Criterion ?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
4.21%	95.79%	10.53%	89.47%

Average change: ≠ 6.32%

The teacher's role and behavioral evaluations.

Do teacher's perceptions of their own role include the responsibility to evaluate? Does the giver of report cards and interpreter of the child to the parent hold these functions in high priority?

On the questionnaire item "adjustments that should be made in my teaching in order to reach my goals", the need for more individualized behavioral evaluation was a low priority and dropped during the time period before the first posttest.

TABLE 14: Need for Individualized Behavioral Evaluation

	Pretest	Posttest 1
1st mentioned	4.21%	1.50%
2nd mentioned	1.97	0.75
3rd mentioned	2.25	N.R.

Composite average change: -2.06%

The social science curriculum design provides unit-by-unit behavioral objectives and lesson-by-lesson evaluation but teachers at this point apparently did not perceive this function as important. The redistribution of teachers' choices within the range of possible clinical responses will be discussed in Chapter V.

When teachers were asked simply "what I attempt to be", the role of goal-setter was among the lowest priority items. The curriculum design was built on the assumption that it is the responsibility of the curriculum designer to select hypotheses and goals from current research. The clinical teacher, however, should certainly be the "evaluator of progress". Teachers in the study did not perceive themselves in this manner. Only two individuals perceived themselves as evaluators on the pretest; there were no responses in this mode on the first posttest.

Criterion 2: Checking instructional materials for validity and applicability to children.

Teachers who function clinically must be aware of the hypotheses inherent in the materials they use, as well as being sensitive to the teacher's role in matching materials to students based on valid criteria and diagnostic data. The questionnaire items relating to this criterion were designed to evoke the ways in which teachers perceive curriculum materials.

This focus is separated both in the development of the iteria and in scoring from selecting lesson ideas (Criterion such as classroom activities, and was also separated from e specific use of content (Criterion 12). Although this paration meant that there were fewer test items related each of these criteria, it was possible to achieve a re detailed description of teachers' perceptions of the e of alternate prescriptions to reach objectives.

e teacher's control of the instructional environment: justing materials.

When asked for "key factors I control", a great rcentage of teachers chose physical factors, like the room rangement, or general factors, like the atmosphere or the hedule. Approximately 85% of the teachers did not perceive ntrolling the instructional environment in a clinical way all. This might have been a problem of usage of language, t the interview on the preliminary runs showed no difficulty communicating the meaning of the question.

On the pretest this item was the first ranking response ong those that scored clinically. On the first posttest e percentage had shifted downward.

BLE 15: Key Factors I Control: Adjusting Materials

	Pretest	Posttest 1
t mentioned	6.46%	2.26%
d mentioned	6.18	2.26
d mentioned	3.37	2.26
n mentioned	3.09	N.R.

Composite average change: -3.08%

This should be compared later in this chapter to the
distribution of scores, noting the sizeable rise in
electing lesson ideas" (Criterion 4).

It would seem that the phrase "adjusting materials"
ant finding another book to most of the teachers. The
rriculum design of The Social Sciences: Concepts and
lues is deliberately constructed to provide ways of
justing the materials through the alternate strategies
r lesson ideas in the Teacher's Edition.
ing other materials towards the same objectives.

A clinical teacher adjusts materials with the hypotheses
d objectives of the curriculum in mind. In traditional
cial studies teachers often have used an easier reading
ok on the topic,e.g. George Washington, without judging
s conceptual emphasis, the use of the facts in relation
decision-making, and the ease of transition to the planned
oblem-resolving activities. Multi-text users often have
w criteria for deciding that the texts are interchangeable
ven if they each have a chapter on George Washington).

There were parts of the study relating to Criterion 2
at were directed at discovering what percentage of the
achers would express explicitly the use of alternate
terials toward the same goals as the curriculum. Another
em measured whether they perceived the goals of the
blished curriculum as part of their criteria for evidence
r evaluation.

TABLE 16: Resources I Use: Other Materials Towards the Same Goals.

	Pretest	Posttest 1
1st mentioned	2.53%	3.76%
2nd mentioned	1.69	3.76
3rd mentioned	3.37	3.76
4th mentioned	2.81	3.76

Composite average change: ≠ 1.16%

This average percentage increase of 1.16% will be seen in Chapter V in the light of the redistribution of the make-up of the clinical score on resource use from pre- to post-test. Over 80% of the teachers saw "resources" as film strips, films, library books, outside speakers and field trips.

The goals of Concepts and Values would not be expected to figure in the pretest. The study did aim to discover how many teachers would become aware of them at the two posttest points in time.

TABLE 17: Evidence for Evaluation: Goals of Concepts and Values Mentioned.

Pretest		Posttest 1	
Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
1.97%	98.03%	12.03%	87.97%

Average change: ≠ 11.06%

Criterion 4: Selecting or tuning the next teaching strategy towards objectives.

When a teacher makes a lesson plan, it is a decision operating in a time span. That moment in clinical teaching occurs after recognizing the hypotheses and diagnosing the needs of the children and before the goals are reached. This is prescribing. In a sense, the items relating to this criterion explored teachers' perceptions of their responsibility to change their teaching if the children display differences or are not responding to the last teaching strategy used.

To what extent did teachers recognize the point of adjusting their teaching?

TABLE 18: Adjusting Teaching

Pretest		Posttest 1	
Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
5.06%	94.94%	14.29%	85.71%

Average change: ≠ 9.23%

TABLE 19: Connects Teaching Strategy to the Characteristics of Students

	Pretest Responses Fulfilled Clinical Criterion?		Posttest 1 Responses Fulfilled Clinical Criterion?	
	Yes	No	Yes	No
1st mentioned	21.63%	78.37%	41.35%	58.65%
2nd mentioned	16.01	83.99	22.56	77.44
3rd mentioned	8.99	91.01	12.78*	87.22

*Percentage change of third mentioned responses from pretest to posttest 1 was nonsignificant.

Composite average change: ≠ 7.35%

This was not even half of the teachers and the shift in the third choice was nonsignificant, but the average percentage increase shows an increase in purposefulness.

As was described in the discussion of items relating to Criterion 2 in this chapter, the idea of the Teacher's Edition providing a bank of goal-directed alternative lesson ideas was new.

TABLE 20: Key Factors I Control: Selecting Lesson Ideas or Experiences to Meet the Needs of Students.

	Pretest	Posttest 1
1st mentioned	2.81%	3.01%
2nd mentioned	4.78	10.53
3rd mentioned	4.78	7.52
4th mentioned	0.84	3.01

Composite average change: ≠ 2.72%

What are the teachers' goals for themselves? Do they ant to be clinical in any of the ways that would be open o the needs of children with whom the last strategy was ot successful? Would they see themselves as responsible or fitting the learning experience to the child?

ABLE 21: What I Attempt to Be: Encourager

	Pretest	Posttest 1
1st mentioned	3.65%	2.26%
2nd mentioned	4.21	3.01
3rd mentioned	2.53	1.50
4th mentioned	2.25	N.R.

Composite average change: -1.47%

ABLE 22: What I Attempt to Be: Prescriber for Differences

	Pretest	Posttest 1
st mentioned	N.R.	N.R.
nd mentioned	1.12%	0.75%
rd mentioned	0.84	N.R.
th mentioned	0.56	1.50

Composite average change: -0.27%

The responsible clinical role of prescriber was one of e lowest priority items at the beginning and decreased ring the first time period. The highest priority item ad "encourager" may have been seen in this light) was

that related to Flanders-style, "warm and friendly". Clinical teachers need to be warm and friendly, too, but they must be so for a purpose, using observable evidence and planned alternative strategies.

TABLE 23: What I Attempt to Be: Did Not Mention Authoritarian or Disciplinarian.

Pretest		Posttest 1	
Responses Fulfilled Clinical Criterion?		Responses Fulfilled Clinical Criterion?	
Yes	No	Yes	No
88.48%	11.24%	96.99%	3.01%

Composite average change: ≠ 8.51%

The general perception of most teachers about their role is an open and friendly one. It was not seen as purposeful or responsible for success, although the idea of selecting new ideas showed a shift in the clinical direction.

Criterion 12: Using alternative examples of content to test and reinforce concepts.

The two questionnaire items relating to this criterion were both asked in the context of the teachers' perceptions of what they do and what they think they should do. To score on either of these items they had to be aware of the nature of concepts or generalizations as goals and the relationship of content to them. This criterion is closely related to both criteria 2 and 4; the data is, therefore, presented at this point rather than in the numerical or clinical sequence.

TABLE 24: Key Factors I Control: Using Other Content to Reinforce Concepts or Ideas.

	Pretest	Posttest 1
1st mentioned	0.28%	0.75%
2nd mentioned	0.84	1.50
3rd mentioned	0.56	0.75
4th mentioned	0.28	1.50

Composite average change: ≠ 0.65%

When one considers how long it has been since concept-centered mathematics was introduced and the amount of writing and speaking on the rearrangement of facts in new social studies, it is important to note how little of these insights have become part of the perception of

these elementary teachers when they focus on social studies.

TABLE 25: Adjustments Needed in My Teaching: Using New Content to Test and Reinforce Concepts

	Pretest	Posttest 1
1st mentioned	0.84%	4.51%
2nd mentioned	1.40	3.76
3rd mentioned	1.12	0.75

Composite average change: ≠ 1.89%

Once again, the percentage shift showed increase, although the non-clinical priorities were much greater than clinical ones; some of the categories among the clinical ones in which the shift was not statistically significant were more important to teachers as shown by percentages. This descriptive information will constitute the bulk of Chapter V.

Criterion 5: Using open-ended questions for diagnostic purposes.

Teachers use questioning for many different purposes; inquiry questioning strategies for cognitive and conceptual development have become particularly familiar phrases among educators. The clinical teacher and the clinical curriculum design of the Teacher's Edition of Concepts and Values

tails open-ended questions, a wide range of possible and
sential types of responses and the use of those responses
r diagnostic purposes.

Three questionnaire items particularly related to
iterion 5 and diagnostic questioning. Doctors and lawyers
diagnostic questioning frequently. How high a priority
h teachers is this skillful use of questions which helps
ldren reveal their snags to understanding?

LE 26: What I Attempt to Be: Questioner

	Pretest	Posttest 1
t mentioned	N.R.	N.R.
d mentioned	1.12%	N.R.
d mentioned	0.56%	N.R.
n mentioned	N.R.	0.75%

Composite average change: -0.33%

E 27: Key Factors I Control: Questions for Diagnosis

	Pretest	Posttest 1
mentioned	N.R.	0.75%
mentioned	N.R.	0.75
mentioned	N.R.	0.75
mentioned	N.R.	N.R.

Composite average change: ≠ 0.56%

ABLE 28: Adjustments That Should Be Made in My Teaching: Diagnostic Questioning

	Pretest	Posttest 1
st mentioned	0.28%	N.R.
2nd mentioned	0.28	0.75%
3rd mentioned	0.28	N.R.

Composite average change: -0.12%

This ability was not seen by teachers as a high priority
d the average percentage shift decreased during these
rst few months of use of the clinical curriculum design.
apter V will report on percentages in Criterion 6; the
ift was nonsignificant but the items focus on using
estions for another purpose, i.e. thinking skills, and
e distribution of responses among categories within the
nical framework.

ographic categories and the shift from pretest to post-
t 1.

The subjects were grouped demographically in several
s: the shifts in their group scores on items relating
each of the twelve criteria were determined. Following
the data on those criteria and the categories within
group where the shift from pre- to posttest was found
be significant at the .05 level.

he reports on analysis of variance for each of these are
o be found in Appendix D.

ABLE 29: Statistics for Each Category Posttest 1
ependent variable Criterion 1: Using overt behavior for evaluation.
ategory: Socio-economic

Category	Freq.	Mean	Standard Deviation (1)
	64	26.108	447.434
ddle-mixture	11	-26.18	414.03
burban	13	-115.08	403.91
ral	6	481.33	423.21
ban	34	106.12	411.62

fference scores were statistically significant at .048

) The figures recorded here reflect exceptionally wide dispersion of scores on a test that required dichotomous scoring.

TABLE 30: Statistics for Each Category Posttest 1
Dependent variable Criterion 2: Checking instructional materials for validity and applicability to children.

Category: Years of experience.

Category	Freq.	Mean	Standard Deviation
	129	4.364	40.883
1 year	1	59.00	0.00
2 years	7	-25.29	22.90
3 - 4 years	3	19.33	36.20
5 - 9 years	27	-6.48	40.54
10 - 14 years	32	20.28	40.53
15 - 19 years	25	11.24	35.68
20 - 24 years	12	-2.92	42.06
25 - 34 years	8	-20.63	41.65
35 - 44 years	9	-12.33	40.28
45 or more years	5	35.80	31.75

ifference scores were statistically significant at .009.

ABLE 31: Statistics for Each Category Posttest 1
ependent variable Criterion 4: Selecting next teaching
trategy by diagnosis and towards objectives.

ategory: Years of experience.

Category	Freq.	Mean	Standard Deviation
	129	-0.155	37.909
1 year	1	52.00	0.00
2 years	7	-24.57	42.48
3 - 4 years	3	20.00	47.16
5 - 9 years	27	-6.96	35.67
0 - 14 years	32	-9.50	38.68
5 - 19 years	25	21.92	35.38
0 - 24 years	12	3.00	33.90
5 - 34 years	8	-10.00	31.64
5 - 44 years	9	0.00	25.77
5 or more years	5	5.60	46.87

fference scores were statistically significant at .033.

Note that the mean score of groups representing 20 - 24
d 35 - 44 years of experience do not shift in the same
rection on items relating to Criterion 4 that they did on
ose relating to Criterion 2.

ABLE 32: Statistics for Each Category Posttest 1
ependent variable Criterion 4: Selecting next teaching
trategy according to diagnosis and towards objectives.

ategory: Age

Category	Freq.	Mean	Standard Deviation
	124	-0.155	37.909
Under 25	15	-13.87	41.12
5 - 29	26	-10.31	31.33
0 - 34	19	14.53	40.62
5 - 39	7	8.00	21.66
0 - 44	10	4.00	36.99
5 - 49	16	20.25	37.42
0 - 54	6	16.67	27.76
5 - 59	12	-19.33	39.66
0 - 64	10	6.00	33.15
5 or more	3	4.00	22.27

ifference scores were statistically significant at .014.

TABLE 33: Statistics for Each Category Posttest 1

Dependent variable Criterion 5: Use of open-ended questions for diagnostic purposes.

Category: Years of experience

Category	Freq.	Mean	Standard Deviation (1)
	129	40.868	452.840
1 year	1	-752.00	0.00
2 years	7	-291.42	392.97
3 - 4 years	3	424.00	428.50
5 - 9 years	27	59.55	309.29
0 - 14 years	32	-63.25	468.51
5 - 19 years	25	195.81	471.39
0 - 24 years	12	-46.00	437.24
5 - 34 years	8	-135.00	394.46
5 - 44 years	9	254.22	403.12
5 and over	5	331.20	683.65

fference scores were statistically significant at .018.

The figures recorded here reflect exceptionally wide dispersion of scores on a test that required dichotomous scoring.

ABLE 34: Statistics for Each Category Posttest 1

ependent variable Criterion 12: Using alternative examples

f content to reinforce or test concepts.

ategory: Years of experience

Category	Freq.	Mean	Standard Deviation
	129	-4.031	38.391
year	1	-44.00	0.00
years	7	11.43	52.43
- 4 years	3	-30.67	16.65
- 9 years	27	-6.67	37.83
- 14 years	32	-16.25	36.21
- 19 years	25	-4.00	38.04
- 24 years	12	28.33	32.96
- 34 years	8	10.50	21.48
- 44 years	9	10.67	43.54
or over	5	-4.80	29.18

fference scores were statistically significant at .040.

Increase in experience does seem to be correlated to

ring clinically on this criterion. Those three groups

se scores were raised are three of the most experienced

ups.

Inter-item correlations

Inter-item correlations were determined among the eighty-four possible responses on the questionnaire. Each of the possible responses had been coded to one of the twelve criteria for clinical behavioral style; the high correlations were to determine if any of them clustered along the predicted lines of the clinical criteria. In addition, the clusters of items with high correlations were reviewed for other possible inferences.

The inter-item correlations alone would not be strong evidence for explication of teachers' perceptions, but they added dimension to the study by highlighting particular aspects of those perceptions.

On the pretest there were a number of possible responses to the questionnaire with correlations for the most part above .68. Most of these high correlations did not relate to any particular criterion for clinical teaching style except for those on the topic of observable behavior (criterion 1). There were some high negative correlations as well (from -.68).

The following tables present clusters of responses to the questionnaire. On the pretest there were five positive clusters, i.e. items which correlated at .68 or greater. There were four negative clusters, i.e. items which correlated at -.68 or greater. The clusters are identified by the topic or description of the item, i.e. what it was about

and are coded in parentheses to show of which of the clinical criteria it was designed to be an example (e.g. evaluation describes behavior Criterion or C1). Following the presentation of each of the clusters of possible responses is a brief discussion or description of what might have tied them to each other. These must be considered only as inferences in the absence of factor analysis.

	C8	C4	C11	C11	C11	C7	C4	C7	C8	C1
Making adjustments: grouping - C8	1.00	.84	.82	.85	.89	.69	.71	.84	.69	.90
Making adjustments: selecting - C4		1.00	.71	.71	.75	.61	.57	.67	.56	.70
Using adults as resource - C11			1.00	.74	.80	.68	.55	.56	.52	.68
Using adults as resource - C11				1.00	.83	.68	.67	.69	.52	.75
Using adults as resource - C11					1.00	.70	.70	.74	.62	.83
Being warm and friendly - C7						1.00	.50	.61	.47	.63
Connects teaching strategy to characteristics of students - C4							1.00	.59	.52	.59
Teaching needs adjusting: less forcing - C7								1.00	.62	.77
Social interaction as a goal in social studies - C8									1.00	.71
Evaluation describes behavior - C1										1.00

luster I (Pretest: Discussion)

This group of items related to six out of the twelve linical criteria. Perhaps the most important data were he missing criteria, those relating to diagnosis and to he values dimensions of clinical perception. Teachers n the study might have been aware of a number of practices s worthwhile, but they were described as having been ractices on all the students without pretesting and iagnosing student needs and without determining the use- ulness of the practices to students in solving problems or n values situations, beyond the vague formulae of getting ong with others or fighting less.

The items in Cluster I indicated perception of behavior a generalized goal but not as one toward which the acher diagnoses, prescribes and evaluates strategies. e teacher's role was seen Flanders-style, warm and friendly, mbined with varying the classroom activities. The rception of the teacher as a purposeful decision-maker s conspicuously absent from the items in Cluster I.

TABLE 38. Inter-Item Correlation, Cluster II (Pretest)

	Intellectual behavior of child	Social science result is observable	Social science result is observable	Social science result is observable	Uses observation for evaluation	Connects social science learning to behavior
Intellectual behavior of child - C3	1.00	.61	.78	.57	.50	.75
Social science result is observable - C1		1.00	.74	.69	.54	.83
Social Science result is observable - C1			1.00	.72	.57	.89
Social science result is observable - C1				1.00	.69	.80
Uses observation for evaluation - C1					1.00	.68
Connects social science learning to behavior - C1						1.00

Cluster II (Pretest): Discussion

From reading the instruments it was observed that the description of the child-as-intellect was correlated to particular kinds of observations, e.g. whether the child recites facts, can read the text, express information verbally and use maps and globes.

TABLE 37: Inter-item Correlations, Cluster III (Pretest)

	Goals are observable	Goals are observable	Goals are observable	Results match goals	Results match goals	S.S. result is observable	S.S. result is observable	S.S. result is observable	Connects S.S. learning to behavior
Goals are observable-C1	1.00	.75	.74	.70	.76	.65	.72	.61	.71
Goals are observable-C1		1.00	.93	.81	.87	.74	.83	.72	.85
Goals are observable-C1			1.00	.83	.89	.72	.82	.71	.83
Results match goals -C1				1.00	.85	.64	.79	.60	.78
Results match goals -C1					1.00	.72	.81	.72	.85
Social science result is observable - C1						1.00	.74	.69	.83
Social science result is observable - C1							1.00	.72	.89
Social science result is observable - C1								1.00	.80
Connects social science learning to behavior - C1									1.00

Cluster III (Pretest): Discussion

All of these items were among those related to Criterion 1, using overt behavior for evaluation. They were the items that indicated a teacher's sense of teaching and learning social science for a behavioral purpose

TABLE 38: Inter-item Correlations, Cluster IV (Pretest: Negative Correlations -.68 or greater).

	Less forcing by teachers	Goal is observable	Result matches goal
Less forcing by teacher - C4	1.00	-.70	-.68
Goal is observable - C1		1.00	-.78
Result matches goal - C1			1.00

Cluster IV (Pretest): Discussion

There was a high negative correlation between the teachers' perceived desire to push children less and their clear perception of observable goals and matching results. A clinical approach does not perceive a dichotomy between holding to specific objectives and being kind to the children. This correlation may indicate that "letting up" was seen as being "goal-less".

TABLE 39: Inter-item Correlations, Cluster V (Pretest: Negative Correlations)

	Child's attitude toward self	Behavioral evidence for evaluation
Child's attitude toward self - C-3	1.00	-.69
Behavioral evidence for evaluation - C1		1.00

Cluster V (Pretest): Discussion

The high negative correlation between perception of the child's self concept and evaluation of his behavior seems to be further evidence of a fragmented or uncoordinated perception of the various teaching and learning tasks.

TABLE 40: Inter-item Correlations, Cluster VI (Pretest: Negative Correlations)

	Result is observable behavior	Result is observable behavior	Evaluation describes behavior	Connects S.S. learning to behavior	Selecting lessons for student needs
Result is observable behavior - C1	1.00	.69	-.75	.83	-.61
Result is observable behavior - C1		1.00	-.70	.80	-.61
Evaluation describes behavior - C1			1.00	-.79	.70
Connects social science learning to behavior				1.00	-.70
Selecting lessons for student needs-C4					1.00

Cluster VI (Pretest: Discussion

The high negative correlation between establishing observable social studies results and evaluating by behavior, selecting lessons according to diagnosis and connecting social science facts to behavior, indicated how random or inconsistent teachers' perceptions were. There seemed to be no evidence of a connecting idea between what a teacher does, why he does it and how he evaluates it.

TABLE 41: Inter-item Correlations, (Posttest 1)

	Child's Motivation	Observable Characteristics of the Child
Child's Motivation - C3	1.00	.69
Observable characteristics of the child - C3		1.00

Cluster I (Posttest 1): Discussion

The combined focus on observation of the child and his own desire to learn reflected a more sensitive diagnostic approach to the learner. These items were possible responses to the same question.

TABLE 42: Inter-item Correlations, Cluster II (Posttest 1)

	Variety of Factors	Observable Factors	Child's Attitude
Variety of factors requiring adjustment in teaching C3	1.00	.74	.74
Observable factors requiring adjustment in teaching C1		1.00	.69
Child's attitude toward self C3			1.00

Cluster II (Posttest 1): Discussion

These items reflected awareness, both a more objective perception of teaching as a strategy coupled with awareness of the child as more than a display of intellectual behavior.

There were no negative correlations of -.68 or greater on the first posttest.

Without careful consideration of the second posttest correlations (see Appendix E) it is difficult to make inferences about the change. Only three and one-half months transpired between the pretest and the first posttest.

The patterns exhibited in the pretest have been interrupted. The absence of negative correlations, the few high positive correlations and the emphasis all differ from the pretest. Whether the interruption resulted from less anxiety over taking the tests, greater familiarity with the test questions, or from the initial impact of an obviously totally new curriculum design cannot be determined.

Card-sort and picture tasks: Correlations to questionnaire totals.

In spite of the extensive testing of the two low-level simulations during the interview after the preliminary runs, the scores on these tasks did not correlate with the questionnaire scores on either posttest.

It is well to recall that it was hoped that these short, easily scorable tests could be used in the future as a rapid test of degree of clinical perception. It is possible that these two tests could be developed into an open-ended, explanatory written instrument and then scored with a checklist in a manner similar to the questionnaire. As long as the questionnaire produced as much data as it did, another open-ended test seems unnecessary and unwise.

These simulations can be useful in in-service or pre-service training and counseling or as bases for development of video-taped or role-played simulations on which systematic observation can be used for evaluation

TABLE 43: Simple Correlations of Two Simulations and Questionnaire Totals

	Card-sort Total	Questionnaire Total	Picture-task Total
Card-sort total	1.00000		
Questionnaire total	-0.07252	1.00000	
Picture-task total	-0.00047	0.28085	1.00000

Summary

It was recorded in Chapter IV that a large percentage of teachers in the study reported use of the Teacher's Edition of The Social Sciences: Concepts and Values before, especially during and even after teaching of lessons every day or over half the days social science was taught. During the period between the pretest and first posttest most of the in-service training was provided by the publisher in the form of a presentation by a consultant and/or an author.

Other data in Chapter IV were derived from the pretest and first posttest results from the questionnaire. The card-sort and picture task results did not correlate with questionnaire totals. The data from the questionnaires on percentage of teachers responding clinically and categories into which those clinical perceptions were classified were reported in clusters relating to the clinical criteria first presented in Chapter I. Those clusters of data presented in Chapter IV were those in which the change from pretest to posttest was statistically significant at a level of .05. In most categories a large majority of the teachers' perceptions were not clinical. During the three and one half month period from the pretest to the first posttest most of the responses showed some increase in the clinical direction in a range from an average of less than 1% to as high an average as 16%. Those responses that showed a decline during the period ranged from an average of less than -1% to an average of as much as -3.08%.

From a descriptive point of view which is the mode of the study, those perceptions relating to Criterion 1: Using overt behavior for evaluating showed the greatest clinical strength in describing the behavior of children and refraining from stereotyping behavior as either related to physical characteristics or solely as a problem for discipline. More teachers connected students' learning to behavior, but few teachers saw behavior as a means of evaluating either

students' progress or the curriculum. Teachers showed almost no recognition of skills in investigating social behavior as any part of the learners role in social science. If students do not have opportunity to behave, they cannot be evaluated in relation to their behavioral changes.

During this period of the study there was considerable increase in describing students in observable terms. There was little or no negative impact on perceiving the student's observable role of investigator or perceiving observation as a key evaluative technique.

Data relating to Criterion 2: Checking instructional materials for validity and applicability to children indicated that most of the teachers did not perceive themselves and the children as resources. Most teachers did not perceive themselves as controlling the instructional environment in a clinical way. Their experience in adjusting materials seemed to mean finding another book on the same topic that was easier to read. The greatest increase during this study in data relating to Criterion 2 was in perception of the goals of the social science curriculum design as goals by which students were evaluated.

The greatest statistically significant increases in clinical perception during the study, were related to Criterion 4: Selecting or tuning the next teaching strategy towards objectives. Items relating to adjusting teaching strategies to students showed the greatest increase, but

even the strongest of the mentioned responses represented less than half of the teachers in the study. The sizeable increases in perception of selecting strategies toward objectives was not matched by teachers' perceptions of themselves as in control through selection.

Most of the teachers saw themselves as non-authoritarian and this percentage showed a sizeable increase. Very few saw themselves in a clinical role, particularly as a prescriber for differences; this was in spite of their recognition of selecting and tuning the curriculum. They showed the least clinical perception when they described their own roles. They did not describe themselves as having clinical types of control. This lack of clinical perception also showed itself in teachers' descriptions of using new content to reinforce and test concepts (Criterion 12). Although there was a slight increase, it was a low priority in the teachers' perceptions of themselves.

The lowest number responding clinically in any of the categories reported in Chapter IV were in response to items relating to using open-ended questions for diagnosis. The percentage was negligible to begin with and the increases and decreases less than 1%. Prescribing without diagnosing seemed to be an accepted way of perceiving the teacher's role.

The data were reported demographically. Except for a correlation between years of experience and using alternative

examples of content to reinforce or test concepts (Criterion 12), the investigator is not sure what organizing theory or relationship accounts for the group scores. In every other statistically significant demographic category relating to criteria, the group means that were raised and those that were lowered do not seem to follow a pattern in age, socio-economic setting of the schools or years of experience in relation to other criteria.

Some of the inter-item correlations bear out the differences noted in the analysis of percentages. Teachers in the study did not see themselves as clinical. They perceived children either as intellectual behaviors or reading skills in the classroom on the one hand and as in need of improved democratic social behaviors, but separate from the academic scene. The curriculum is not perceived clinically as connecting students to objectives. Teachers are not seen as responsible for reaching objectives besides being warm and friendly.

Although progress was made toward clinical perceptions, the uncoordinated view of the factors in the instructional environment still prevailed for most teachers. The greatest progress was made in perception of observing children and selecting learning experiences toward objectives. The greatest difficulty was in perceiving evaluation and the teacher's role as prescriber and evaluator in a clinical way and perceiving students in social science as active investigators of social behavior and social problems.

Chapter V

RESULTS AND DISCUSSION

Chapter V presents findings generated by the study in addition to those related to the five statistically significant clinical criteria which were reported in the preceding chapter. It was possible for a teacher to receive a clinical score in any of several classifications on each questionnaire item.

Chapter V explores the rank order of choices among those responses which were judged to be clinical. The preferential order was descriptive of the priorities held by the teachers in the study.

The classifications of the clinical responses are reported as comparisons between the data derived from the pretest and each of the posttests. Sets of subjects were given either the first or second posttest; no subject was tested three times. The actual statistics for each clinical choice of each questionnaire item are detailed in Appendix D (Posttest 1) and Appendix E (Posttest 2).

The data are presented in three clusters representing: 1. The teachers' view of the students: all related to Criterion 3--making diagnoses. The categories or classifications represent the kinds of data a clinical teacher would have gathered from the use of diagnostic experiences.

2. The teachers' view of goals: these were perceived in three frames of reference--for students, for social studies and for the teachers' own behavior.
3. The teachers' view of teaching: these relate to perception of self and several ways in which teaching can reach goals--through control of the instructional environment, through use of resources, and adjustment of teaching strategies.

In the following tables the titles indicate the questionnaire item to which the teachers responded. The composite average percentages were computed from the total group percentages of each mentioned response, divided by the number of possible responses that could have been mentioned. This was ordinarily a lower percentage than if only the first and/or second responses had been used. The percentage of clinical first responses is given; some teachers were able to give one clinical response but not sustain it through all the possible choices which make up the composite average.

The horizontal lines dividing the classifications represent sizeable differences in the percentages of those classifications above and below the line. If the order of a classification in the posttest list was the same as the order in the pretest, that posttest classification is designated "same". If the percentage of teachers who chose that "same" response is, however, considerably greater on the posttest, it is designated "same ≠". If the percentage who chose that "same" response is, however considerably

smaller, it is designated "same -".

1. The teachers' view of the students.

TABLE 44: Change from Pretest to Posttest 1. The Most Important Characteristics of My Students (Criterion 3).

Pretest (September)	Posttest 1 (January)
Composite average percentage of clinical responses 49.91%	55.89%
Percentage of clinical first responses 55.62%	69.92%
Rank order among clinical choices	
Intellectual behavior	Same ≠
Child's motivation	Same ≠
Behavior toward others	Same
Specific learning skills	Same
Behavior displaying emotion	Same -
Socio-economic background	Same -
Child's attitude toward himself	Same -

Horizontal lines indicate great differences in percentages.

≠ = considerably larger percentage of the total responses than on the pretest.

- = considerably smaller percentage of the total responses than on the pretest.

Note: These responses relate to Criterion 3, making diagnoses.

TABLE 45: Change from Pretest to Posttest 2. The Most Important Characteristics of My Students.

Pretest (September)		Posttest 2 (April)
Average percentage of clinical responses	49.91%	49.79%
Percentage of clinical first responses	55.62%	59.49%

Rank order among clinical choices

Intellectual behavior	Intellectual behavior ≠
Child's motivation	Child's motivation -
Behavior towards others	Behavior displaying emotion ≠
Specific learning skills	Socio-economic background ≠
Behavior displaying emotion	Behavior towards others -
Socio-economic background	Specific learning skills -
Child's attitude toward himself	Child's attitude toward himself -

The teachers were primarily concerned with standard learning behaviors (test performance, bright or slow, above or below grade level) and the childrens' eagerness, or lack of it, to pursue learning tasks without having to be motivated by the teacher. On the first posttest, there occurred a decline in the low priority items and strengthening of the high priority items with a sizeable increase in perception relating to motivation.

Those tested on the second posttest displayed increased perception of intellectual behavior and of both socio-economic background and emotional behavior of the children. To what extent the awareness of socio-economic background is related to outside community factors, such as busing to achieve racial balance, would have to be checked school by school. There was an increase in perception of behavior displaying emotion and a decrease in the percentage perceiving reading (the usual "specific learning skill" referred to) as a priority on describing children.

The percentage of teachers who were particularly aware of signs of a healthy self-concept or one that needs bolstering was very small. The entire diagnostic aspect of clinical teaching and the degree of openness to varieties of honest responses from children would seem to be closely linked to internalizing the psychological theory of self-concept.

The patterns of responses on this item of those teachers who took the first posttest reflect a shift upward in recognition of a child's motivation; other than that there was less difference between the pretest and first posttest than between the pretest and the second posttest.

It is also worthy of note that the percentage of first responses which are within the clinical range was considerably higher than those who could sustain clinical perceptions to raise a high average percentage over all the possible responses on this questionnaire item.

The teachers in the study exhibited an increase in the already high percentage of those who did not mention physical characteristics or stereotypes without indicating what behaviors were perceived as attached to them: from a pretest percentage of 95.51% to a posttest 1 percentage of 97.74% (≠ 2.23%). 98.73% scored in the second posttest (≠ 3.22%).

Another aspect of the teachers' view of the student was revealed in response to the item "factors in my students requiring adjustments in my teaching". This item also probed the diagnostic dimension but in a less disguised manner. The item assumed in its wording that a teacher has to adjust to the conditions of the student.

TABLE 46: Change from Pretest to Posttest 1. Factors in My Students Requiring Adjustments in My Teaching.

Pretest (September)		Posttest 1 (January)
Average percentage of clinical responses	33.85%	37.41%
Percentage of clinical first responses	54.78%	60.15%

Rank order among clinical choices

Specific learning skills	Intellectual behavior ↗
Intellectual behavior	Specific learning skills -
Socio-economic background	Socio-economic background ↗
Child's motivation	Behavior toward others ↗
Behavior toward others	Child's attitude toward self ↗
Behavior displaying emotion	Behavior displaying emotion -
Child's attitude toward self	Child's motivation.

TABLE 47: Change from Pretest to Posttest 2. Factors in Students Requiring Adjustments in My Teaching.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 33.85%	37.76%
Percentage of clinical first responses 54.78%	68.35%
Rank order among clinical choices	
Specific learning skills	Intellectual behavior ↑
Intellectual behavior	Specific learning skills -
Socio-economic background	Socio-economic background ↑
Child's Motivation	Child's motivation -
Behavior towards others	Behavior displaying emotion -
Behavior displaying emotion	Behavior toward others -
Child's attitude toward self	(Child's attitude toward self not chosen by anyone).

The teachers' great preoccupation with a specific learning skill, usually reading, dropped as a major factor for both posttest groups. Teachers' concern over intellectual behavior, e.g. verbalizing and discussing, increased--more in the second group than the first.

Redistribution of choices was considerable over the two time periods. In the second group all items except two dropped in percentage.

The focus in this question on the teacher's having to adjust produced decidedly different rank order of choices from the previous question which asked for descriptions of students without mentioning teacher adjustment. When the teacher had to adjust, the perceptions were not of children's psychological needs. There was greater concern with: can he read?; is he naturally bright?; where does he come from?

The priorities described here do not reflect on perception of teaching as helping growth through diagnosis and prescription. The first posttest did show an increase in variety of factors (↗ 10.40%); the second posttest, however, reflected less variety and more concentrated views (-4.53%).

2. The teachers' view of goals.

Four items on the questionnaire generated data on what these teachers perceived about goals. Many of the possible clinical responses related to criteria for which change in the related items was statistically nonsignificant and therefore, not reported in Chapter IV.

The first of these questionnaire items asked, "in what ways are you trying to change your students?" Each of the possible clinical responses relates to a specific criterion and is so coded (e.g. C8).

It is of interest at this point to note that the shift from pre- to posttest 2 was statistically significant for items relating to Criteria 1, 4 and 5 (as was true for post-

test 1) and, in addition, for Criterion 9: using problem situations involving differences in values for the purpose of training in problem-resolving. Items relating to Criteria 2 (checking materials) and 12 (using alternative content) which were statistically significant in the first posttest were nonsignificant in the second.

TABLE 48: Change from Pretest to Posttest 1. Ways You Are Trying to Change Your Students.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 53.16%	60.72%
Percentage of clinical first responses 64.89%	78.20%
Rank order among clinical choices	
Improved skills of social interaction (C8)	Same
Self-concept goals (C7)	Same ↓
Independent learner with new ideas (C7)	Cognitive goals ↓
Cognitive goals (C6)	Independent learner -
Motivational goals (C7)	Motivational goals
Skilled in process of investigation (C1)	Same ↓
Effective handling of values differences. (C9).	Effective use of information in solving problems (making choices) (C9) ↓
Effective use of information in solving problems (making choices (c9).	Effective handling of values differences (C9)

TABLE 49: Change from Pretest to Posttest 2. Ways You Are Trying to Change Your Students.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 53.16%	56.01%
Percentage of clinical first responses 64.89%	67.09%
Rank order among clinical choices	
Improved skills of social interaction (C8)	Same ≠
Self-concept goals (C7)	Same ≠
Independent learner with new ideas (C7)	Same
Cognitive goals (C6)	Motivational goals -
Motivational goals (C7)	Cognitive goals -
Skilled in process of investigation (C1)	Effective handling of values differences -
Effective handling of values differences (C9)	Skilled in process of investigation.
Effective use of information in solving problems (making choices) (C9)	Effective use of information in solving problems (making choices). (No responses in this category).

The average percentage of clinical responses was much higher on this questionnaire item which did not require teachers to view themselves. They were asked for their perceptions of goals in terms of their students.

On all the tests the teachers' overwhelming choices of a goal was improved skills of social interaction. They expressed this, in spite of their perception noted earlier that their view of the student was of his intellectual behavior, his reading ability, etc. What they wanted for him, however, was his ability to interact peacefully and be tolerant and respectful of the differences of others.

The order of priority on this item remained nearly the same for all three tests, with the major shift occurring in the strengthening of the percentage choosing self-concept goals within the same rank order.

These perceptions required less evidence on the part of teachers and, perhaps, they represent the degree to which these teachers verbalize some of the more recent theoretical goals of the new social studies of the literature and speeches. The desire for more democratic behavior was perceived here as a goal for students. The next tables report on these same categories of choices when the teacher is asked for his goals, not <u>for</u> the students but <u>of</u> the social science curriculum.

TABLE 50: Change from Pretest to Posttest 1. Categories of Social Science Goals.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 18.96%	19.17%
Percentage of clinical first responses 36.80%	43.61%
Rank order among clinical choices	
Improved skills of social interaction (C8)	Same -
Cognitive goals (C6)	Same
Self-concept goals (C7)	Effective handling of values differences ↓
Skilled in process of investigation (C1)	Self-concept goals
Motivational goals (C7)	Skilled in process of investigation.
Effective handling of values differences (C9)	(Effective use of information in solving problems
	Motivational goals
Independent learner with new ideas (C7)	
Effective use of information in solving problems (C9)	Independent learner with new ideas.

TABLE 51: Change from Pretest to Posttest 2. Categories of Social Science Goals.

Pretest (September)		Posttest 2 (April)
Average percentage of clinical responses	18.96%	18.78%
Percentage of clinical first responses	36.80%	35.44%
Rank order among clinical choices		
Improved skills of social interaction (C8)		Same ↗
Cognitive goals (C6)		Same -
Self-concept goals (C7)		Same
Skilled in process of investigation (C1)		Effective handling of values differences.
Motivational goals (C7)		Effective use of information in solving problems ↗
Effective handling of values differences (C9).		Motivational goals
Independent learner with new ideas (C7)		Independent learner with new ideas
Effective use of information in solving problems (C9)		Skilled in process of investigation.

The percentage of teachers who perceive social science curriculum goals clinically is very much smaller than those who take a clinical view of goals for students. The absence of substantial connections between what was taught and what was expected reflects the incomplete theory of teaching and the uncoordinated perception of the tasks which were delineated in Chapter IV by analysis of the pretest inter-item correlation.

Being an independent learner with new ideas was among the top three goals for students, but it was viewed as totally unimportant as a goal of learning social studies in school.

On the rank order in the posttests improved skills of social interaction was still the overwhelming first choice and was up over its percentage in the pretest. The considerable rise in rank (in the posttests) of effective handling of values differences as a curriculum goal is noteworthy. It had been among the lowest priorities for individual goals in the pretest. Coupled with use of information in problem-solving there is some recognition that the curriculum can be a bridge between information and making choices. These two items reflect the uses of social science knowledge, rather than "knowing about" famous men, the location of places and map and globe skills which represented by far the majority of curriculum goals of the greatest percentage of people.

A third way in which the study elicited teachers' perceptions of goals was to give them the opportunity to report on "real outcomes in the children which fall short of my goals in social studies or social science". The wording of this questionnaire item makes the clinical connection between children's behavior as a goal of social science curriculum, but in a negative frame of reference. In this framework, as was noted in Chapter IV relating to Criterion 1, teachers showed greater percentage increases

in clinical responses than in dealing with social science curriculum goals from a positive point of view.

TABLE 52: Change from Pretest to Posttest 1. Categories of Disappointing Outcomes in Social Science.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 15.95%	25.56%
Percentage of clinical first responses 28.65%	44.36%
Rank order among clinical choices	
Improved skills of social interaction (C8)	Motivational goals ↗
Motivational goals (C7)	Improved skills of social interaction ↗
Cognitive goals (C6)	Cognitive goals ↗
Effective handling of values differences (C9)	Effective handling of values differences
Independent learner with new ideas (C7)	Effective use of information in solving problems ↗
Self-concept goals	Independent learner with new ideas ↗
Skilled in process of investigation (C1)	Self-concept goals -
Effective use of information in solving problems (C9)	Skilled in the process of investigation -

TABLE 53: Change from Pretest to Posttest 2. Categories of Disappointing Outcomes in Social Science.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 16.95%	27.85%
Percentage of clinical first responses 28.65%	48.10%
Rank order among clinical choices	
Improved skills of social interaction (C8)	Same ✓
Motivational goals (C7)	Same ✓
Cognitive goals (C6)	Same ✓
Effective handling of values differences (C9)	Skilled in process of investigation ✓
Independent learner with new ideas (C7)	Use of information in solving problems ✓
Self-concept goals (C7)	Independent learner with new ideas
Skilled in process of investigation (C11)	Self-concept goals
Effective use of information in solving problems (C9)	Effective handling of values differences -

The posttests showed strengthening of initial perceptions as well as the added strength of several of the here-and-now responses which represent classroom activities and discussion. Teachers showed increased clinical perception in five and six of the eight possible categories.

The self-concept of the child remained a low priority and the acceptance of values differences and problem-

resolving as articulated concerns remained minimal and erratic.

On this item teachers in the study showed a greater variety of strengthened clinical responses and, therefore, a greater awareness of what might have been. It is perhaps natural that people are most willing to admit to goals in a context which is personally non-threatening and does not call for a personal commitment to responsibility, even within the protection of an anonymous response.

There was more concern over lack of motivation in the context of results than there was in the other questionnaire items which focused on diagnoses or on alternate strategies for creating motivation.

The fourth item in the cluster of those that show the teacher's view of goals was somewhat different from the other three and was scored according to different classifications. It asked the teachers to consider ways in which their teaching should be adjusted in order to reach their goals. The item is less disguised, assuming in its wording that teaching can be adjusted and should be adjusted and that doing so would increase the chance of reaching the goals. The question is goal-directed, but probes for the teachers's perception of responsibility through clinical teaching strategies. The scoring categories are needs for specific clinical strategies.

TABLE 54: Change from Pretest to Posttest 1. Adjustments That Should Be Made in My Teaching In Order to Reach Goals.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 17.04%	23.81%
Percentage of clinical first responses 24.44%	38.35%
Rank order among clinical choices	
Less teacher-forcing of students (C7)	More flexibility for handling differences ↗
More individualized behavioral evaluation (C1)	Less teacher-forcing of students -
More action experiences for children (C11)	Same ↗
More flexibility for handling differences (C11)	New content for testing concepts.
New content for testing concepts, etc. (C12)	More individualized behavioral evaluation -
More diagnostic questioning (C5)	More role-play and values discussion
More role-play and values discussion for diagnosis (C10)	More diagnostic experiences ↗
More diagnostic experiences	More diagnostic questioning
Diagnose causes of hostility apathy and lack of motivation (C7)	Diagnosing causes of hostility, apathy and lack of motivation.

TABLES 55: Change from Pretest to Posttest 2. Adjustments That Should Be Made in My Teaching in Order to Reach Goals.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 17.04%	27.00%
Percentage of clinical first responses 24.44%	44.30%
Rank order among clinical choices	
Less teacher-forcing of students (C7)	Flexibility in handling differences ↗
More individualized behavioral evaluation (C1)	Less teacher-forcing of students.
More action experiences for children (C11)	Same
More flexibility for handling differences (C11	New content for testing concepts, etc. ↗
New content for testing concepts, etc. (C12)	More individualized behavioral evaluation -
More diagnostic questioning (C5)	More diagnostic questioning.
More role-play and values discussion for diagnosis (C10)	Diagnose causes of hostility, apathy, etc.
More diagnostic experiences	More diagnostic experiences.
Diagnose causes of hostility apathy and lack of motivation (C7)	More role-play and values discussion for diagnosis.
	Note: Neither of the last two received any responses at all.

The rank order in the pretest is in sharp contrast to the concern for motivation as a goal.

Diagnosis is the way in which a clinical teacher finds out the causes of lack of motivation so that he can then prescribe for it. All the diagnostic teaching behaviors ranked very low and involved a very small percentage of teachers in the study. Those responses which were most popular were those that were the most general; the first fitted into the Flanders-style pattern of warm and encouraging. The concern for evaluation was not matched by equal perception of willingness to take responsibility for securing evidence for evaluation. Perhaps the teachers recognized the need for evaluation and yet perceived themselves as inadequate or reluctant in the role of evaluator.

The posttests indicated sizeable increases in perception of need for flexibility in handling differences among children. The importance of diagnosis to guarantee purposeful flexibility has not been established with very many of the teachers in this study.

3. The teachers' view of teaching.

A cluster of questionnaire items probed for clinical responses from the vantage point of teachers viewing themselves; one on what their preferred roles are in teaching and three on their teaching strategies.

TABLE 56: Change from Pretest to Posttest 1. What I Attempt to Be.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 20.65%	18.05%*
Percentage of clinical first responses 26.12%	24.06%*
Rank order among clinical choices	
Warm, friendly (C7)	Same -
Encourager (C4)	Same -
Guide in problem-solving & values discussion (C9)	Same ✓
Prescriber for differences (C4)	Manager of problem situations ✓
Goal-setter (C1)	Prescriber for differences.
Questioner (C5)	Goal-setter
Diagnostic (C3)	Questioner
Evaluator of progress (C1)	Diagnostic
Manager of problem situations to help children overcome barriers (C4).	Evaluator of progress (Not one response)

*Percentage change of first and second mentioned responses from pretest to posttest 1 was nonsignificant.

TABLE 57: Change from Pretest to Posttest 2. What I Attempt to Be.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 20.65%	22.47%
Percentage of clinical first responses 26.12%	25.32%
Rank order among clinical choices	
Warm, friendly (C7)	Same ✓
Encourager (C4)	Same
Guide in problem-solving & values discussion (C9)	Same ✓
Prescriber for differences (C4)	Diagnostic ✓
Goal-setter (C1)	Prescriber for differences
Questioner (C5)	Manager of problem-situations ✓
Diagnostic (C3)	Questioner
Evaluator of progress (C1)	Goal-setter
Manager of problem situations to help children overcome barriers (C4).	Evaluator of progress
	Note: There was no response from any subject for these last two.

Teachers were certainly not aware that a "clinical answer" scored. The teachers in this study perceived handling of differences as the greatest need for adjustment in their teaching, but prescribing for differences was not at all high on their list of ideal roles.

Both posttests showed an increase in the role of guide in problem-solving and discussions involving differences in values. The second posttest showed an increase in diagnosing and prescribing for differences. The concomitant role in evaluation which must accompany a professional's skill and right to diagnose and prescribe was not part of the perception of teachers in the study.

How do the teachers perceive their role from a strategic rather than an ideal view?

TABLE 58: Change from Pretest to Posttest 1. Key Factors in the Instructional Environment I Control.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 11.58%	13.15%
Percentage of clinical first responses 15.45%	13.53%
Rank order among clinical choices	
Adjusting the materials to the child (C2)	Select lesson ideas ↗
Selecting lesson ideas and learning experiences (C4)	Grouping children ↗
Grouping of children (C8)	Adjusting materials -
Questions for thinking skills (C6)	Using other content ↗
Using other content examples to reinforce concepts (C12)	Questions for diagnosis ↗
Questions for diagnosis (Not one response)	Questions for thinking skills -.

TABLE 59: Change from Pretest to Posttest 2. Key Factors in the Instructional Environment I Control.

Pretest (September)		Posttest 2(April)
Average percentage of clinical responses	11.58%	8.23%
Percentage of clinical first responses	15.45%	10.13%

Rank order among clinical choices

Adjusting the materials to the child (C2)	Grouping children ↗
Selecting lesson ideas and learning experiences (C4)	Selecting lesson ideas
Grouping of children (C8)	Adjusting materials -
Questions for thinking skills (C6)	No response at all on:
Using other content examples to reinforce concepts (C12)	Questions for diagnoses Questions for thinking skills. Using other content examples.
Questions for diagnosis (Not one response).	

Much of this data related to statistically significant criteria and was reported in Chapter IV. Additional information here focuses on the rise in rank and percentage of the choices grouping children and selecting lesson ideas and the decreased percentages in adjusting materials. Although few teachers (8 - 13%) in the study saw themselves in control by clinical teaching standards, the posttests reflected a redistribution of choices that closely approximates the clinical teaching functions of teacher and Teacher's Edition of the curriculum.

The questionnaire item on "resources I use in Social Studies" did not specify in the scoring in every case for what the resources were used. Consequently the reported data showed what the teachers recognized from the input into the Teacher's Edition of Concepts and Values. It will be recalled that each of the inputs was designed to promote clinical teaching behavior. This question, however, elicited data on recognition of resources.

TABLE 60: Change from Pretest to Posttest 1. Resources I Use in Social Studies.

Pretest (September)	Posttest 1 (January)
Average percentage of clinical responses 17.14%	19.55%
Percentage of clinical first responses 14.61%	21.05%
Rank order among clinical choices	
Parents and/or community (C11	Same -
Other materials for same goals (C2)	Same ✓
Action opportunities to gather data or illustrate concepts (C11)	Children as resources for each other ✓
The child's own experiences (C11)	Action opportunities ✓
Children seen as resources for each other (C11)	Child's own experiences
Other teachers (C11)	Other teachers ✓
Teachers own questions and/or understanding (C6).	Teacher's Edition ✓
Teacher's Edition of curriculum	Teacher's own questions, etc.
Older children	

TABLE 61: Change from Pretest to Posttest 2. Resources I Use in Social Studies.

Pretest (September)	Posttest 2 (April)
Average percentage of clinical responses 17.14%	22.78%
Percentage of clinical first responses 14.61%	22.78%
Rank order among clinical choices	
Parents and/or community (C11)	Same ↗
Other materials for same goals (C2)	Action opportunities ↗
Action opportunities to gather data or illustrate concepts (C11)	Children as resources for each other ↗
The child's own experiences (C11)	Other materials -
Children seen as resources for each other (C11)	The child's own experiences -
Other teachers (C11)	Other teachers ↗
Teachers own questions and/or understanding (C6)	Teachers own questions and/or understanding ↗
Teacher's Edition of curriculum	Teacher's Edition ↗
Older children	Older children (Not one response)

From the overall percentages and first choice percentage it can be seen that most teachers perceive resources as things and places. The major increases were in the perception of action opportunities and child-to-child interaction as resources in social science. It is the perception of the classroom, the school and the community as a learning laboratory in using information of human

beings for human problem-solving that makes the clinical teaching of social science effective: goals, diagnoses, prescription and evaluation. The students are also part of the subject matter and of the goals in a clinical teaching approach to social science.

Summary

In the cluster of items reflecting the teacher's view of the students the data showed a prime concern with standard learning behaviors: above or below grade level, bright or slow, and whether they were already motivated before they came to class. The first posttest showed an increased perception of motivation. The second posttest showed an increased interest in intellectual behavior (e.g. verbalizing and discussing), in socio-economic background and emotional factors. There was very little awareness of self-concept as a significant characteristic of a student.

The teacher's view of the student in the context of the teacher's having to make adjustments was not of the student's psychological needs but of his reading ability and his background; is he naturally"bright"? During the study the first posttest group showed an increase in the variety of their responses; the second group showed a consolidation of views about intellectual behavior and background. The preoccupation with reading lessened. The teachers' priorities, however, did not reflect perception of diagnosis and pre-

scription as ways in which teachers help children grow and change.

The cluster of items which highlighted the teacher's view of goals indicated that many more teachers responded clinically about goals when asked about them in reference to the students than when asked about goals for the curriculum or goals for themselves. The overwhelming choice among clinical goals for children was improved skills of social interaction, in spite of their perception of the student in terms of his intellectual behavior and his reading ability.

The absence of substantial connections between what was taught and what was expected reflects an incomplete theory of teaching and an uncoordinated perception of instructional tasks. For example, being an independent learner with new ideas was among the top three goals for students, but was viewed as totally unimportant as a goal of learning social studies in school. During the study there was a considerable rise in priority of effective handling of values differences as a curriculum goal. When coupled with use of information in problem-resolving, there is some recognition that the curriculum can be a bridge between information and making choices.

Teachers showed greater percentage increases in clinical responses when asked for disappointing results of social studies than when asked for their own positive view of curriculum goals. The posttests indicated strengthening

of initial perceptions as well as the added strength of several choices dealing with using information and practicing behaviors here-and-now. There was more concern over lack of motivation in the context of results than there was in the other questionnaire items which focused on diagnoses or on alternate strategies for creating motivation.

When teachers were asked about their goals in terms of adjustments they ought to make in their teaching in order to reach those goals, their clinical responses were primarily the general one of forcing children less. They showed concern also about evaluating children individually. The concern for evaluation was not matched by equal perception or willingness to take responsibility for securing evidence for evaluation. All the diagnostic teaching behaviors ranked very low and involved a very small percentage of teachers in the study. The posttests indicated sizeable increases in perception of need for flexibility in handling differences among children; the importance of diagnosis to guarantee purposeful flexibility was not established with many of the teachers in the study.

The cluster of items which focused on the teachers' view of teaching showed a major emphasis on the personal qualities of warmth, friendliness and encouragement to children. Both posttests showed an increase in the role of guide in problem-solving and discussions involving

differences in values. The second posttest showed an increase in diagnosing and prescribing for differences, but without the concomitant role of evaluator. There was a rise in rank and percentage of the choices grouping children and selecting lesson ideas with a decrease in having to adjust materials by finding others outside of the curriculum. Most teachers did not perceive "use of resources" as in school people-to-people activities. The major increases during the study were in the perception of action opportunities and child-to-child interaction as resources in social science.

There was a low percentage of clinical responses to most of the questions in the study in both pretest and posttests. The percentage of teachers whose perceptions could be classified clinical ranged from item to item from 2% to somewhat over 25%. The shift between pretest and first posttest was statistically significant on five of the twelve criteria and from pretest to second posttest on four of them. The shift was in the predicted clinical direction on most items, averaging approximately 3% but ranging to as much as 16% on some.

Although few teachers (8 - 13%) in the study saw themselves in control of the instructional environment by clinical teaching standards, the posttests reflected a redistribution of choices that closely approximates the clinical teaching functions of the teacher and Teacher's Edition of The Social Sciences: Concepts and Values.

Chapter VI

CONCLUSIONS

One of the underlying assumptions in the study was that clinical behavioral teaching style can help children reason and make decisions in the face of values conflicts within and among groups. It was also assumed that classroom teachers do not easily use clinical style and often avoid the values area; there was, therefore, a need for daily support for the teacher in the form of self-correcting instructional materials.

The use of the clinical social science curriculum made it possible for teachers to move daily through the planned strategies based on twelve clinical criteria. As they used the Teacher's Edition of The Social Sciences: Concepts and Values, without coaching or use of a reactive test or interview, their perceptions could be tested in relation to the clinical criteria and from various points in a systems analysis sequence.

The study reported that the Teacher's Editions were used almost every day by most of the teachers and were used as planned, both before and during teaching. This practice affirmed the acceptability of a detailed daily clinical lesson sequence with banks of alternative learning experiences; it also made it possible to assess perceptions without having to discount the previously heard complaint of teachers that they would teach differently or feel

differently about their teaching if they had materials which matched the objectives.

The study was designed to answer several questions. How clinical were teachers' perceptions? When using a clinical curriculum design will changes in perception occur? Will any changes be in the direction of the clinical criteria on which the curriculum design was constructed? Do those changes relate to specific demographic factors? What other information will be generated? What implications can be derived from the findings?

There will be no attempt here to summarize in detail the results of each aspect of the study. These data have been reported and summarized in Chapters IV and V. The focus of this chapter is on implications derived from findings related to the questions.

How clinical were teachers' perceptions?

Although teachers have not heard a great deal about clinical teaching as a coordinated theory and set of practices, they do call themselves professionals, thereby comparing themselves to other professionals who have been consciously trained in clinical strategies. Teachers have been exposed to many of the aspects of clinical teaching as separate factors (e.g. meeting individual needs; self-concept in relation to motivation). Some of the practices built into the curriculum and probed in the study are considered clichés by teachers as well as by teachers of teachers. It would seem that a unified, not uniform, clinical

approach to teaching supported by a unified, not uniform, supportive curriculum design and program for continued staff development are necessary for helping teachers internalize the clinical philosophy and practice.

There are teachers performing individual behaviors used by clinical teachers but these teachers may not plan or use the results of these behaviors clinically. In teaching it is beginning to seem that self-conscious awareness of a theory or model may be essential to the teacher's continuing and purposeful use of clinical behaviors.

It was hoped that the pinpointing for this research of types of behavior and perceptions in verbal equivalents in each phase of a clinical teaching cycle might help teachers of teachers, designers of curriculum and directors of implementation to determine what correlations there are between the various phases of clinical behavior, as teachers perceive it.

The fact that no more than 15% of teachers responded clinically to most items in the study makes it clear; it is important for colleges, school systems, curriculum designers and teacher associations to know how far we must go before most teachers perceive their teaching of social studies or social science clinically.

To what extent were teachers' perceptions within the clinical framework?

One conclusion is certain. The degree to which teachers perceived clinically and the type or classification of their clinical perceptions are related to:

-the phase of the clinical sequence (hypothesizing, diagnosing, prescribing, evaluating)

and

-the stance or viewpoint from which the perception occurs (view of students, goals or teaching).

Although each detailed phase should be looked at separately to understand the shadings of clinical perception, it is possible to conclude that those teachers who did adjust, adjusted most readily to various alternate prescriptions or classroom strategies other than reading and to observation of overt behavior of students. They have the most difficulty with maintaining a sense of purpose, diagnosing from those observations and evaluating the effects of the prescribed strategies on the students.

Whenever the clinical sequence required the teacher to take the ultimate responsibility for students, i.e. in diagnosis of need and evaluation of results, for most of the teachers those responses were very low among their priorities. It is no wonder that teachers have felt so threatened by behavioral objectives, performance contracting, differential staffing, evaluation, etc. They avoided the responsible roles whenever they were presented in this

study and from whatever stance.

Popham, (1971) has stated:

> One needs only to speculate on the typical intentions of most public school teachers. They wish to cover the content of the course, to maintain classroom order, to expose the student to knowledge, and so on. Rarely does one find a teacher, who prior to teaching, establishes clearly stated instructional objectives in terms of learner behavior and then sets out to achieve those objectives. Only recently, in fact, do we find many teachers who are even familiar with the manner in which instructional objectives are stated in measurable form.
>
> Lest this sound like an unchecked assault on the teaching profession, it should be pointed out that there is little reason to expect that teachers should be skilled goal achievers. Certainly they have not been trained to be; teacher education institutions rarely foster this sort of competence. Nor is there any premium placed on such instructional skill after the teacher concludes preservice training. The general public, most school systems, and professional teachers' groups rarely attach special importance to the teacher's attainment of clearly stated instructional objectives.

The study brings detailed descriptive evidence to bolster Popham's discussion. The teachers had serious difficulty in connecting child psychology to student behavior and student behavior to a curriculum area which has as its subject human beings. Motivation, self-concept and recognition of emotional behavior were not mentioned as factors requiring adjustment of teaching strategies, lesson ideas or kinds of evaluation. When those psychological factors were mentioned, it was as if they were fixed factors which came with the child or were hoped for results, but without planned strategies for reaching them. When asked about goals for

children, they described democratic human interaction. When asked for goals for social studies curriculum,they described understanding differences and knowing famous names,places and geographic skills. When asked for a description of the children as they are, they described intellectual behavior and reading skills.

Social studies was not easily seen as a behavioral science. There was little positive recognition that the study of human behavior (as different from simply studying descriptions about people) and the classroom teaching strategies had the same objectives, i.e. changing the behavior of children. The teachers showed more clinical perception when asked about goals for children than when asked about goals for social studies. They put the two kinds of goals together best when they were asked for disappointing outcomes in social studies. Then they were better able to cite behavioral change as a hoped for result which was not as certain as they wished. Even in that context, the teachers had difficulty linking teaching to goals of any sort.

Were any of the changes in a clinical direction?

This study was primarily descriptive at three points in time. It was interesting to note significant movement in a clinical direction of even 3 - 10% in most perceptions.

Demographic factors and implications

It was not possible in this study to attribute clinical perception to demographic factors. Many accepted conclusions about either recency of training, years of experience or the ease of teaching in a suburban school as opposed to an urban or rural setting have been shown not to be applicable to clinical teaching perception. Perceiving teaching in a clinical manner was much more an individual matter; personnel offices, colleges of education, staff development administrators, school principals, student teachers and teachers themselves will need to develop a more analytical approach to assessing teaching potential and ability than use of demographic data and a general interview.

Teacher associations would be wise to establish assessment and counseling services of their own as the individual's approach to himself and to responsibility are keys to his acceptance of children and his clinical use of clinical materials. As teacher associations move for more decision-making power, they will need to be able to guarantee that academic freedom and negotiated contracts are in the hands of professionals who recognize standards of practice. They must be able to screen for those who may love children but are not skilled and perceptive enough to be clinical practitioners. Even skilled trades set their own examinations and grant their own tenure. Since college courses, years of experience and district salaries were shown to have little obvious correlation to this model of professional excellence, a pro-

fessional organization will have to set standards and keep them if it is not to be criticized for bargaining equally for excellence and mediocrity. Teachers' associations should sponsor assessment before and during tenure and could do much more to sponsor their own in-service training to maintain up-to-date standards of clinical practice.

The focus on self-assessment of Education 200 (Educational Psychology) at Michigan State University is, indeed, to be a model, hopefully not just for one introductory course. It includes self-assessment, analysis of personal and professional objectives both individually and in small groups, strategies and evaluation. Such a philosophy and practice ought to be established for a student's whole experience with opportunity to "hold" or postpone the decision to become a teacher or to "abort" the plan if it seems advisable. Not everyone has the ego strength to take the responsibility to evaluate and revise and adjust.

If demographic factors cannot be counted on for results, then curriculum producers should be pressured to engineer their materials and state their objectives, strategies and evaluation as a total system. School systems can help by planning, implementing and evaluating continual building level feedback.

The burden for success in the twelve behaviors (from which perceptual hypotheses were developed) certainly at this time rests with the curriculum design and, hopefully, with

carefully planned preservice and in-service training. This study revealed that most of both burdens in this case were being carried by the publisher through its Teacher's Edition and its consultant staff.

What kinds of training? Training in both theory and practice that will bring teachers' perceptions and concerns out into a supportive, sharing environment. The commonalities of present perceptions reflects a lack of a unified theory. Training should be geared to focus on feelings and adult-to-adult support within the school, between schools in a system and within the community.

Future research

Longitudinal research is needed: how many years does it take for a teacher's classroom experiences to reinforce theory? To what extent does clinical perception accompany or follow clinical practice? In the study teachers' perceptions seemed both to accompany and follow practice. The reinforcement-through-curriculum hypothesis should be tested in other subject areas as well as extending this study in time. Research is also called for in measuring comparatively the long-term effects of different curriculum materials and no curriculum materials on teachers' behavior and perception.

Other research is needed on the effect of different combinations of preservice and in-service training in inducing teachers to evaluate materials clinically. What combinations of training in theory, in practical use of the specific curriculum in the schools, in self-assessment

and in building of support systems will provide the surest rewards and, therefore, have the greatest opportunity for helping teachers become more diagnostic, more flexible, yet goal-directed?

The failure of the low level simulations leaves the problem of development of clinical testing through simulation. Guidance and evaluation of college students and teachers could be enhanced. Such simulation-testing for other parameters is now in use in industry. With the detailed description available from this study, teacher assessment could be much more effective.

Curriculum design and research

This study reaffirmed the investigator's belief as a curriculum designer that field research should be an on-going part of a continuing cycle of designing, developing, measuring, feeding back into design, development, pre-service education and in-service staff development. School systems must be helped to become learning systems.

The clinical process can apply to curriculum design as well as to classroom strategies. Through a clinical process of curriculum designing, curriculum design becomes engineering of the instructional environment and classroom teaching takes on the purposeful dimensions of design.

Curriculum design is needed to develop clinical teaching on a mass scale. There should be no fear of giving teachers too much help. Curriculum design can not only convey experiences to students, it can replace text-writing with

aids to goal-setting, diagnosing, prescribing, evaluating and revising. In conjunction with clinical college teaching and in-service training much can be done to individualize education in the social interaction subjects in which students must be taught in groups.

The percentage change over the short time periods in this study, as well as the redistribution of clinical choices established the existence of the link between clinical curriculum design of materials and clinical perception.

The design of curriculum materials can induce better teaching; it provides some of the conditions which reward teachers through increased success for children and, therefore, for themselves. Curriculum design, in company with the design and implementation of adult-to-adult support toward the same objectives, can become a continually updated learning system. Such a learning system can both increase achievement of performance objectives and enhance the humane factors for which education in a democracy exists.

FOOTNOTES

1. Ward, T. W. Professional integration and clinical research. The Supervisor: Agent for Change in Teaching. Association for Supervision and Curriculum Development. Washington, 1966.

2. The work of the Learning Systems Institute, Michigan State University is summarized in the Final Report, Behavioral Science Elementary Teacher Education Program, October, 1968, Michigan State University, Project #8-9025, Contract #OEC-0-8-089025-3314 (010), Vol. 1.

3. Wiener, N. The human use of human beings. Cybernetics and society. Garden City: Doubleday Anchor, 1954.

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5. Simon, A., Boyer, E. G., Mirrors for Behavior, Research for Better Schools, Inc., Philadelphia, Penna. Under Provisions of Title IV ESEA of 1965 in cooperation with the USOE, Research Contract #OEC 1-7-062867-3053. 1967. System 8.

6. Mirrors for Behavior, System 23.

7. Mirrors for Behavior, System 13.

8. Wallen, N. E., et al. The Taba Curriculum Development Project in Social Studies. Menlo Park: Addison-Wesley, 1969, p. 207.

9. Mirrors for Behavior, System 14.

10. Loree, (1971) raises the question of the application of reinforcement theory to changing the concerns of teachers.

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APPENDIX A

BSTEP Proposal: Michigan State University

In-Class Teaching Behaviors (Prescriptive & Evaluation)

Substantive Dimensions

A. Changing subjects--adjusting and adapting selected subject matter to unanticipated pupil reaction (e.g., dislike, emotional tension, and interest).

B. Changing sequence (reorganize)--altering anticipated sequence of content units to either (a) allow additional time for remediation and/or reinforcement or (b) eliminate attention to areas already known by pupils.

C. Changing tasks--modifying planned pupil tasks (e.g., assignments) to fit readiness level of individuals and/or small or large groups.

D. Changing pace--altering pace of content activities on basis of unforseen pupil reaction (e.g., over-stimulation) and/or time problems.

In-Class Teaching Behaviors Behavioral Dimensions

A. Questioning pupils regarding subject matter--providing verbal stimuli to initiate desired pupil response.

B. Explaining subject matter to pupils--interpreting terms, meanings, motives, in language that readily communicates to pupils.

C. Acknowledging pupil contributions--responding to pupils' answers and suggestions, using their contributions for illustration, contrast, and comparison.

D. Assessing pupil grasp of content, products and operations--testing (could be by listening, watching, reading, etc.) for pupil ability, problems, and self-satisfaction.

E. Extinguishing undesirable pupil behaviors--applying deviancy control techniques.

PLEASE CIRCLE THE APPROPRIATE DATA:

Male Female

AGE	Grade level teaching this school year (1970-71)	Total years of full-time Teaching Experience including present year.
Under 25		
25-29	3	
30-34		one year
35-39	4	two years
40-44		3-4
45-49	5	5-9
50-54		10-14
55-59	6	15-19
60-64		20-24
65 or more		25-34
		35-44
		45- or more years

CARD - SORT TASK

In the small envelope are ten cards and three labeled "tents". Each card describes one teaching situation and a teaching decision. You are asked to judge each teaching decision.

Set up the labeled tents in front of you.

Sort the cards into piles in front of the appropriate tents.

After you have sorted all the cards, please record your decisions below.

List the number of each card in the column which represents your judgment.

	Right Decision	Wrong Decision	Uncertain
Order is not important	___	1	___
	___	2	___
	___	3	___
	4	___	___
	___	5	___
	___	6	___
	___	7	___
	___	8	___
	___	9	___
	___	10	___

Questionnaire (Page 1)

This will give you a chance to describe yourself and your students. Fill in as many of the items in each section as you can.

I. The items in Section I focus on the students as they come to you, your objectives for them and the influence of the students characteristics on your plans for teaching.

A. The most important characteristics of my students:

For example: (1.) they wiggle a lot

(2.) they're geniuses

1. _____

2. _____

3. _____

B. In what ways are you trying to change your students?

I want my students to learn to be

For example:(1) more skilled at fighting on the playground

1. more _____

2. more _____

For example:(1) less afraid of snakes

1. less _____

2. less _____

(list here only your most important 4 objectives)

C. The particular factors in my students that require special accommodation or adjustment of my teaching procedure:

For example: (1.) they are blind

1. _____

2. _____

3. _____

4. _____

II. The items in Section II focus on your daily classroom procedures.

A. Key factors in the instructional environment I control:

For example: (1.) opening and closing windows

(2.) my temper on Fridays

1.

2.

3.

4.

B. Resources that I use with my students in social studies or social science:

For example: (1.) classroom visits from many tribal chiefs

1.

2.

3.

4.

C. What I attempt to be:

For example: (1.) just one of the kids

1.

2.

3.

4.

D. Ways in which my teaching is adjusted to the particular characteristics of my students:

For example: (1.) I sing and dance often to keep them from wriggling

1.

2.

3.

III. The item in Section III focuses on your view of the results of your procedures in relation to your goals.

Specific adjustments that should be made in my teaching in order to make it more apt to reach the goals.

For example: (1.) quit shouting at children

1. _____

2. _____

3. _____

IV. The items in Section IV focus on two overview questions, relating to your experience in teaching social studies or social science.

MY GOALS IN TEACHING SOCIAL STUDIES OR SOCIAL SCIENCE	FOR EACH OF YOUR GOALS AT THE LEFT, REALISTICALLY, WHAT USUALLY HAPPENS IN TERMS OF ACTUAL ACHIEVEMENT?
For example: (1. Each child will memorize 4 states	(1.) Most can only remember 27
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____

V. The items in Section V focus on your **evaluation of your students in social studies or social science.**

What **evidence do I use** for evaluation of the success of the curriculum and each child? (For report cards, for the school files and/or for your own records):

For example: (1.) I weigh the children

(2.) I flip a coin

1. _____

2. _____

3. _____

Which real outcomes in the children fall short of my goals in social studies or social science?

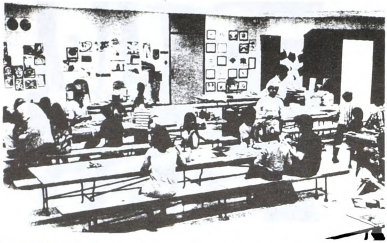
For example: (1.) They groan more than they used to

1. _____

2. _____

3. _____

Picture A



Check the appropriate column for each of the words

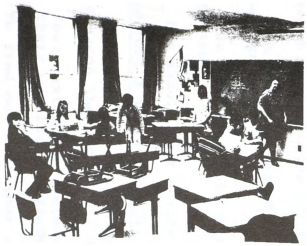
	Does describe this class	Does not describe this class	Can't tell
Busy	x		
Teacher-directed	x		
Teacher-centered		x	
Attentive	x		
Purposeful			x
Inattentive		x	
Controlled			x
Flexible			x
Academic			x
Passive		x	
Motivated			x
Disorganized		x	

Picture B



Busy	x		
Teacher-directed	x		
Teacher-centered	x		
Attentive	x		
Purposeful			x
Inattentive		x	
Controlled	x		
Flexible		x	
Academic			x
Passive	x		
Motivated			x
Disorganized		x	

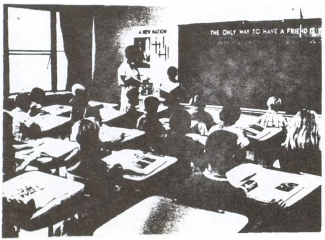
Picture C



Check the appropriate column for each of the words

	Does describe this class	Does not describe this class	Can't tell
Busy	x		
Teacher-directed			x
Teacher-centered		x	
Attentive	x		
Purposeful			x
Inattentive		x	
Controlled		x	
Flexible	x		
Academic			x
Passive		x	
Motivated	x		
Disorganized			x

Picture D



Busy	x		
Teacher-directed	x		
Teacher-centered			x
Attentive	x		
Purposeful			x
Inattentive		x	
Controlled	x		
Flexible			x
Academic	x		
Passive			x
Motivated			x
Disorganized		x	

Card-Sort Task

Card-sort 1 (Criterion 1):

You teach in a school system in which you must give letter grades in all subject matter areas. You have a child in class who can answer social science questions by drawing pictures or acting out his answers in a skit but he cannot read the text or write answers on written tests as well as any of the other children who are getting "B"'s.

You decide to give him a C and write a detailed and complimentary comment about his work for his parents and his cumulative file.

How should your action be judged?

Card-sort 2 (Criterion 2):

The faculty has met and decided democratically that they should all teach the same course content within each grade level.

In the faculty curriculum committee two teachers are in considerable disagreement over whether China or Latin America should be the focus of the sixth grade curriculum. Two primary teachers are discussing whether holidays or Indians should be the topics of the second grade.

You are chairman and are asked by the faculty to settle the arguments.

You put each topic in a different semester since all are important.

How should your action be judged?

Card-sort 3 (Criterion 3):

The children in your class have good verbal skills, but in a group they act as if school were a big bore.

Your next social science unit is on members of groups and their similar behaviors and values.

To find out what your class' group values are and at the same time introduce the new unit, you have the children read a story about an Indian tribe and its values and write or tell about it.

How should your lesson plan be judged?

Card-sort 4 (Criterion 5):

You want to find out what the children in your class know about cultural traits or behavior.

You ask: "Why do all groups of people have accepted ways of behaving?"

Among the children's responses are the following:

"Because they need them."
"Who cares anyhow."
"That's how they adapt to their environment."
"Because they do."
"Things would be in a mess if they didn't."

How should your question be judged?

Card-sort 5 (Criterion 6):

In order to help the children learn problem-solving you ask:

"Should a person who lives in a democracy be fined for not voting?"

How should your question be judged?

Card-sort 6 (Criterion 7):

Your social science class has been studying about different groups in different societies around the world. One child without raising her hand says:

"I wouldn't join any group that's got niggers (or honkies) in it."

You smile understandingly at her and calmly call on someone else whose hand is raised.

How should your action be judged?

Card-sort 7 (Criterion 8):

The children in your class need to learn how to participate in making decisions in groups in which there are many strong differences in views.

You decide to divide the class into groups for their next research report; each group will have to present one report on the way of life in another country.

How should your decision be judged?

Card-sort 8 (Criterion 9):

One of your objectives is to help the children in your class value and work for peace. The social science text explains how the Hopi Indian society values peace.

You design a project in which the children make the classroom into a Hopi Indian village and have the children role-play a typical day in the life of the Hopis.

How should your lesson plan be judged?

Card-sort 9 (Criterion 10):

Seven children in your class volunteer to be participants in a role-play. The role-play calls for only three children to plan ways of helping a shy girl in the neighborhood make more friends. Among the volunteers in your class is a girl who always plays by herself.

You decide not to choose her for the role-play.

How should your action be judged?

Card-sort 10 (Criterion 12):

You assign your social science class a research topic: read in the library to find out about the ways different people adapt to their environment.

Two of the children bring in detailed reports on ways people live but say nothing of how these ways show adaptation.

You let it go this time but next time you use films and filmstrips with those two instead of books.

How should your action be judged?

POSTTESTS ONLY

_____

_____

USING THE TEACHER'S EDITION

A. As you see it, the Teacher's Edition of Social Sciences: Concepts and Values is primarily useful to: (Circle one)

1. help me understand the book
2. help me to work with children of different abilities and attitudes.
3. train me to use the book effectively

B. How often have you used the Teacher's Edition? (This is important. Please be frank.) (Circle one)

1. Every day that I taught Social Studies
2. Almost every day that I taught Social Studies (more than half the time).
3. Half the days that I taught Social Studies.
4. Less than half the days that I taught Social Studies.
5. Never

C. When have you used the Teacher's Edition? (Circle as many as you wish.)

1. Before teaching
2. While teaching
3. After teaching

D. How you used the Teacher's Edition? (Circle the one that applies best.) Generally, have you used:

1. Most of the lesson ideas in the Teacher's Edition.
2. Just those lesson ideas in the Teacher's Edition that I choose ahead of time.
3. I have no standard way of using the Teacher's Edition.

INSERVICE TRAINING

Please check any and all of those that apply.

_____1. I have had at least one university course in new Social Studies methods and materials in the past two years.

_____2. I have had one workshop or heard one presentation by the Harcourt consultant.

_____3. I have heard a presentation by one of the authors of the series.

_____4. Our school (or school system) has had its own workshop on new Social Studies in general.

_____5. Our school (or school system) has had its own workshop on this Harcourt Social Science program.

APPENDIX B

Record of Distribution of Tests to Participating School Systems

School System	Number Requested By School System & Sent for Pretest	Pretest Number Returned	Posttest 1 Number Returned	Posttest 2 Number Returned	Final Number
A	99	72	52		52
B[1]	91	38 (only 34 with name lists)	28		28
C	26	10		0[2]	0
D	19	10	8		8
E	42	32	28		28
F	69	26		0[3]	0
G	113	100		39	39
H	23	17	13		13
I	56	51		30	30
Totals	538	356	129	69	198

1. Had a full time Director of Research.
2. Director of Research took leave of absence.
3. Director of Research took leave of absence. Tests returned 7 weeks late.

Dr. Paul F. Brandwein, President
Center for the Study of Instruction
Polk and Geary Streets
San Francisco, California 94109

I agree to participate in the initial phases of the study, at least. I hope to be able to participate in the entire study.

I have designated the staff member listed below as the one who is responsible to negotiate with

Nancy Bauer
Research Associate, Center for the Study of Instruction, and
Fellow, Michigan State University

Staff member_____

_____
signature

TO: Mrs. Nancy W. Bauer
Fellow, Learning Systems Institute

Return form from Administrators

The research instruments will be administered in the following building (s) on the date noted.

Building Name	Time	Date	Number of Teachers*

Please send evaluation packets to me at this address.

_____
Name, Title

_____
School Name

_____
School Address

_____
City, State Zip Code

*Using Teacher's Edition Levels 3, 4, 5, 6 of The Social Sciences: Concepts and Values daily.

FROM: Nancy W. Bauer
Fellow, Learning Systems Institute
Michigan State University

To the administrator:

Dear

You have been designated by your school district to administer curriculum research instruments to the teachers in _____ school (s).

As you know, the purpose of this research is to evaluate the effects of the Teacher's Edition of the social science series, The Social Sciences: Concepts and Values (Harcourt, Brace and World, 1970), and ultimately to bring you information applicable to strengthening the performance of your teachers within this curriculum.

The teachers to be involved in this study are those teaching Levels 3, 4, 5 and 6. They should agree to use the Teacher's Edition daily and participate in two sessions for evaluation of the materials, one in the fall, the other in mid-winter or in late spring.

To conform to the requirements of the research, the administration of these instruments should be:

1. Given to all teachers in a single building at one time.

2. Given during a regular faculty meeting time, so that the task is viewed as a bona fide professional responsibility, not an added burden or a casual favor.

3. Given between September 14 and October 9. As early in the time period as possible.

Your role in planning, setting up the room and creating the proper atmosphere is crucial.

1. The room should allow each teacher desk or table space so that his/her responses are not easily seen by others. Teachers cannot do these tasks on their laps.

2. Coffee and cigarettes will make the task pleasanter for those who wish them, particularly if this is at the end of the school day.

3. Pencils with erasers should be available.

4. All teachers using The Social Sciences: Concepts and Values Levels 3, 4, 5, 6 in any one building should participate.

5. You will note on a form which we will send with the packets of instruments which teacher received which numbered envelope. This is necessary so that the results of the first evaluation session can be correlated with the results of the second evaluation to be given in either January or early May.

   As you know all individual responses will be coded. Individuals, schools and school districts remain anonymous.

6. You will collect sealed packets from the teachers and have them mailed to the university immediately after the session, along with the form containing the list of names and numbers.

There are three tasks, each of which is self-administered by each teacher and needs only a pencil. The entire time needed will not exceed 45 minutes. If a teacher needs help in understanding the directions, you may give it individually.

May we suggest that you emphasize the following points:

1. That this is a unique opportunity for teachers to be part of a nation-wide curriculum research and development program.

2. That the information the teacher gives will help in determining the usefulness of the Teacher's Editions.

3. That teachers will remain absolutely anonymous; all responses will be coded. Teachers, schools and school districts will not be identified in the findings of the study. Each packet envelope should be sealed by the teacher before being turned in to the administrator.

Many thanks for your aid in making it possible for teachers to participate in what we trust will be a meaningful professional experience.

If you have other questions at any time, please write me 202 Erickson Hall, Michigan State University, East Lansing, Michigan, or call (313) 642-2149 or 626-5790

To the Administrator:

Enclosed is:

_____ numbered packets

_____ Form for listing teachers and number of packet each received.

_____ A copy of the letter you received earlier for your quick reference.

_____ Mailing label - please send sealed packets and list registered, 1st. class mail.

At the end of this evaluation session, please ask each teacher to put the card-sorts in the small envelope, enclose all materials in the large envelope.

After packet envelopes are sealed, please collect all packets and mail immediately to:

Mrs. Nancy W. Bauer
Fellow, Learning Systems Institute
Michigan State University
E. Lansing, Michigan 48823

District | Building Name | Date

Teacher's Name | Number of Packet

FROM: Nancy W. Bauer
Fellow, Learning Systems Institute
Michigan State University

To the teacher:

Your school will use The Social Sciences: Concepts and Values[1] as your social science curriculum. As you know, it comes in two interwoven parts. The children's text is essentially a laboratory book and the Teacher's Edition is the basic structure of the total teaching-learning experience.

The Teacher's Edition was developed with continual feedback from school systems and schools throughout the nation.

The purpose of this research is to gather further information on the usefulness of the Teacher's Edition of The Social Sciences: Concepts and Values to teachers. You have been selected to participate with other teachers in other schools in different parts of the country.

You are asked to use the Teacher's Edition daily and to participate in two sessions for administering instruments such as these, at this time and once more in either mid-winter or late spring.

As you will notice the top half of the first page is a data sheet. Your identity remains anonymous and your individual responses are only seen by the research staff. The number on the instruments identifies the region, size of community and school district in which you teach.

There are four tasks in this study:

1. Data about you (Page 1 - upper half)

2. Card-Sort task in small envelope
   Record data on page 1 - lower half

3. Questionnaire (4 pages)

4. Picture Analysis (2 pages)

Directions are on each task. Findings for the entire study will be reported back to the staffs of participating schools early in the school year 1971 - 72.

Thank you for your cooperation.

If you have any questions or suggestions related to these materials, please feel free to communicate them to me at the above address.

[1]Harcourt, Brace and World, Inc. 1970

FROM: Nancy W. Bauer
Fellow, Learning Systems Institute
202 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Dear

Enclosed are the post-test instruments for those teachers who completed the pretest in the fall.

As you know, the purpose of this research is to evaluate the effects of the Teacher's Edition of the social science series, The Social Sciences: Concepts and Values (Harcourt, Brace and World, 1970), and ultimately to bring you information applicable to strengthening the performance of your teachers within this curriculum.

The teachers involved in this study are those teaching levels 3, 4, 5 and 6. They have agreed to use the Teacher's Edition daily and participate in two sessions for evaluation of the materials, one in the fall, the other in mid-winter or in late spring.

To conform to the requirements of the research, the administration of these instruments should be:

1. Given to all teachers (who took the fall pretest) in a single building at one time.

2. Given during a regular faculty meeting time, so that the task is viewed as a bona fide professional responsibility, not an added burden or a casual favor.

3. Given between January 11 and February 12. As early in the time period as possible.

4. EACH TEACHER RECEIVES THE SAME PACKET NUMBER THAT HE RECEIVED IN THE PRETEST. You will find the packet number on the form which we are sending with the packets of instruments for each building. This is absolutely necessary so that the results of the first evaluation session can be correlated with the results of this second evaluation. EACH TEACHER SHOULD INITIAL THE FORM NEXT TO HIS NAME TO VERIFY RECEIVING THE CORRECT PACKET NUMBER.

As you know all individual responses will be coded. Individuals, schools and school districts remain anonymous.

Your role in planning, setting up the room and creating the proper atmosphere is crucial.

1. The room should allow each teacher desk or table space so that his/her responses are not easily seen by others. Teachers cannot do these tasks on their laps.

2. Coffee and cigarettes will make the task pleasanter for those who wish them, particularly if this is at the end of the school day.

3. Pencils with erasers should be available.

4. You will collect sealed packets from the teachers and have them mailed to the university immediately after the session, ALONG WITH the form containing the list of names and numbers.

There are five tasks, each of which is self-administered by each teacher and needs only a pencil. The entire time needed will not exceed 1 hour. If a teacher needs help in understanding the directions, you may give it individually. Teachers may use more time if they wish, but they should not take the test packets out of the room. They should finish before leaving, without consulting each other.

May we suggest that you emphasize the following points:

1. That this is a unique opportunity for teachers to be part of a nationwide curriculum research and development program.

2. That the information the teacher gives will help in determining the usefulness of the Teacher's Editions.

3. That teachers will remain absolutely anonymous; all responses will be coded. Teachers, schools and school districts will not be identified in the findings of the study. Each packet envelope should be sealed by the teacher before being turned in to the administrator.

Many thanks for your aid in making it possible for teachers to participate in what we trust will be a meaningful professional experience.

If you have other questions at any time, please write at 202 Erickson Hall, Michigan State University, East Lansing or call (517) 353-6417 and ask for Diane Giebel, Secretary to the Social Science Curriculum Research Project.

September 25, 1970

Dear

This is just a reminder to you as administrator of the research instruments to your Social Studies teachers that:

1. The week of October 12 - 16 is the deadline for administering the instruments.

   These are pre-tests and obviously must be completed before the teachers are well into the program. If the Teacher's Editions have not arrived, so much the better for a valid pre-test.

   If your teachers are having in-service training or demonstrations from Harcourt, please try to have the pre-tests taken before those sessions.

2. When you return the sealed packets, be sure you also return the form which records teachers names and packet numbers. There should be one form for each place in which the tests were administered. When the post-tests are given in the second semester, we will send the test packets to the correct building and each teacher will also receive the same number he had in the pre-test.

3. If you have any questions or problems, please call the Learning Systems Institute at Michigan State University: (517) 353-6418. The secretary to this project is Miss Diane Giebel.

4. Please return the packets immediately. Be sure none are lost.

5. Please continue to remind teachers that this study requires their use of the Teacher's Edition every day that they teach Social Studies.

Many thanks to you and your teachers.

Sincerely,

Nancy W. Bauer
Fellow, Learning Systems Institute

APPENDIX C

Preliminary Run I Notes

N = 8

Testing time: 10 to 45 minutes

A summer session of experienced teachers from an urban school system and student teachers from the university. Another person came with this investigator to observe and take notes on the comments and behavior of the teachers. Setting: A faculty lounge. Teachers could sit anywhere they liked. Atmosphere informal. The teachers were tired at the end of their teaching day and some were very anxious to get home.

Some wording on the instruments was not clear, reflected in such statements as "is this what you want?" Questions were answered by this investigator as they worked.

Teachers were interviewed as they finished.

Some of the student teachers found it difficult to concentrate. They had not known their students long enough to answer some of the questions and they had no previous experience to which to refer. Two of the student teachers became flustered; one was not willing to complete the task, he said he was hungry.

Some of the test questions about adjustment of teaching seemed repetitive, reflecting lack of clear communication understanding that adjustments in teaching that are actually made may differ from adjustments which should be made.

The question on classroom procedures needed to be cued specifically to social studies.

Preliminary run I (cont'd).

Some terms were unclear, e.g. the term "factors" needs to be changed to "goals" in the list of "ways you are trying to change your students".

One teacher wanted clarification of what was meant by "evaluation of your students".

There was some concern over having to create one's own answers in an open-ended questionnaire. Several openly wished they could discuss these items in the group rather than commit themselves.

The Card-Sort game

Two teachers were reluctant to commit themselves to card-sort decisions. They wanted to use the cases for a take-off point for discussion with others.

Conclusions drawn from Preliminary Run I.

It is obvious that the setting and instructions need to be more businesslike. These teachers do not see any positive value of the task to themselves. Of course, they are right. The actual task must be a contract between the teacher and the research project for a reason involving self-interest.

Several of the card-sorts need redesigning to focus only on the hypothesis under consideration. The teachers recorded their reasons for making each decision; in some cases it was possible for them to find or request alternatives to the original set-up of the situation rather than recognize that those conditions were fixed. In each of these cases the description was redesigned,

e.g.

H2 "In a faculty curriculum committee two teachers are in a curriculum disagreement"--

was changed to

"The faculty has met and decided democratically that they should all teach the same course content within each grade level"--

This change took care of the tangential (for purposes of this study) concern over who tells teachers what they should do.

The card-sort decisions were redesigned several times, using an elementary school principal and a supervisor of student teachers to:

1. estimate from the case story what the hypothesis was (for validity).
2. predict the reactions of teachers to the decisions--would the teachers recognize each decision as a supportable one, even though they might disagree.

In addition to being a test for clinical perceptions, each card-sort must be supportable for non-clinical reasons as well. (Standard norms of behavior for the role of teacher as explainer, disciplinarian, umpire and giver of grades). If there is gain in clinical perception and standards, many of these decisions should move from seeming right to seeming wrong.

After Preliminary Run I, the questionnaire was revised:

To include examples which indicate the meaning or range of the questions without guiding the answers.

To make the examples slightly amusing and in handwriting so that the subjects will take note of the examples and become more aware of the focus of the questions but not be overguided into particular types of answers as preferred or expected.

The term "evaluation" was broken down into several specific ways of assessing student progress.

Preliminary Run II

N = 12

This was the first run for the picture test.

Setting: An integrated day workshop of volunteers from a wide variety of schools, many from independent and parochial schools.

These teachers had been in the workshop for almost two weeks and were extremely enthusiastic about "letting children express themselves", "the teacher's role as guide", "The curriculum must meet the needs of each child as he sees them". An initial prediction would be that presumably in some areas of the instruments these teachers should score well.

Preliminary run II (cont'd).

Card-Sort

The card-sort responses were still falling into the uncertain category which may reflect ambiguity in the focus of the cases.

The card-sort involving a bully so involves teachers in either punishing the bully or protecting the other children from him that the issue of diagnosis of the reasons for being a bully never came up. This (#3a) card-sort had to be eliminated.

The card-sort dealing with class discussions was too complicated. The connection between selecting the groups and the kind of topic under discussion was not clear.

Questionnaire

The greatest difficulty was encountered over the question (IV) on goals and realities in teaching social science.

The directions would have to be spelled out for each question so that there will be no need to ask for help when the instruments are being administered by a school principal or coordinator.

The range of answers is broad but on the point, which was a sign that teachers were being themselves when they answer. This was important for validity.

This group of teachers wrote in great detail and seemed to take the task more seriously than the first.

They are volunteers; many of them know the researcher personally and seem anxious to help. Their detailed responses help to give insight into the usage of the language in the questionnaire by teachers.

When asked for goals in social studies they became both specific on rote memory items and vague. The lack of goals in social studies beyond "finding latitude and longitude", "knowing the great men of history" and a generalized "understanding others" will make this item a helpful measure of change (if any) in teacher attitudes toward the use of the curriculum.

These preliminary runs indicated that even very "open", "innovative" teachers may have little sense of what the curriculum should do or is doing.

Picture Test

The picture test was run for the first time using photographs. Loose photographs are not as business-like a format as is needed. The lack of enough table space is still evident. When a teacher has to use chairs as easels and his lap for a desk, part of the spell of "this is professional" cannot help but dissipate--even with this seemingly highly motivated and enthusiastic group.

The directions for half the group were to circle the letter of the pictures that apply. Each page must be carefully identified so that there is no confusion about "which picture am I on?" or "Do I have to do them in order?"

Preliminary Run II (cont'd).

The directions for the other half of the group had a second column for checking "items that can't be answered at all". Subjects seemed to like the second column as it gave them a more realistic and complete choice.

Card-Sort

Each subject was interviewed after deciding and recording reasons for their decisions. Recording the reasons for decisions took a great deal of time.

The card-sort responses seemed on the point, although some of the items still seem to be falling into the uncertain category.

Preliminary Run III

N = 4 on Card-sort

N = 7 on Questionnaire

Setting: Suburban summer school. Four male teachers who are hired for summer school because they have both prestige and seniority.

They worked at desks in a more formal setting and the task was described as "a professional one in which their participation was crucial". There was some concern that "the others have the same task I do".

The data sheet has been redesigned to include I.D. information and card-sort answers on one page. This would save space. People tend to overlook the six I.D. information as it is placed on this sheet.

Preliminary Run III (cont'd).

Card-sort directions were spelled out in chronological order. It has been decided that the teachers should record the numbers rather than simply put a check next to a printed number in order to avoid confusion if the cards are not in numerical order. The teacher may think more carefully about each decision if its number is to be recorded.

The responses are more clearly right or wrong, fewer in the uncertain column.

Picture test seemed to have no difficulty and provoked considerable interest.

"Teacher-centered" was added to the list of adjectives describing each picture in order to clarify perception of the teacher's role, "teacher-directed" and "teacher-centered" being different. This investigator was concerned that the appearance of the two items constituted an obvious value judgment, that teacher-directed is "good" and teacher-centered is "bad". The subjects, however, seemed to feel more comfortable with the distinction, because the two items clarified each other.

Card-sorts had been reworded for simplicity and brevity. The final ten cases seem satisfactory. No difficulty in interpretation of the single point left open for judgment. Easily scorable as clinical or not.

Preliminary Run IV

N = 8

Setting: A summer session for inner city children from low socio-economic families. The director of the summer school said that the teachers were selected for the summer session "because they were from the community, used to "slow learners" and were willing to make the place comfortable, even for those children with discipline problems".

These teachers were not aware of new teaching strategies or new social studies curricula. They had difficulty reading some of the directions and asked for a good deal of help in what to do.

All interpretations of directions that were needed were recorded and included in the final revision of the questionnaire and the answer sheets for the two simulation tasks. There were no questions or problems in answering the actual test items on any of the three instruments.

The answer sheet for the Picture Task had been changed to a check list in which one check had to be made for each adjective. This eliminated any difficulty in combining two sets of directions, e.g. circling words and checking off items.

The Card-Sort decisions seemed to be worded more clearly as fewer teachers listed items in the uncertain column. Their reasons for making decisions reflected the issues for which the cards were designed.

Preliminary Run IV (cont'd).

The I.D. data sheet seemed easy to fill out. Only the male-female item seemed to be overlooked. Spacing and size of letters will be changed on the final form to make the item more obvious at first glance.

APPENDIX D

TABLE D1 : Analysis of Variance Posttest 1

Dependent Variable Hypothesis 1: Using overt behavior for evaluation

Category: Socio-economic

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx.Significance Probability of F Stat.
Between Categories	1892514.84307861	4	473128.71076965	2.47202	0.048
Within Categories	23732767.63720703	124	191393.28739548		
Total	25625282.48046875	128			

TABLE D2 : Analysis of Variance Posttest 1

Dependent Variable Hypothesis 2: Checking instructional materials

Category: Years of Experience

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx.Significance Probability of F Stat.
Between Categories	35358.41957378	9	3928.71328598	2.61777	0.009
Within Categories	178593.45639420	119	1500.78534785		
Total	213951.87596893	128			

TABLE: D4 : Analysis of Variance Posttest 1

Dependent Variable Hypothesis 4: Selecting next strategy by diagnosis and towards objectives

Category: Years of Experience

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx.Significance Probability of F Stat.
Between Categories	25401.18197584	9	2822.35355288	2.11835	0.033
Within Categories	158547.71724701	119	1332.33375838		
Total	183948.89922333	128			

TABLE D5 : Analysis of Variance Posttest 1

Dependent Variable Hypothesis 5: Use of open-ended questions for diagnostic purposes

Category: Years of Experience

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx. Significance Probability of F Stat.
Between Categories	3967824.66320801	9	440869.40702057	2.35469	0.018
Within Categories	22280398.09667969	119	187230.23610687		
Total	26248222.75976563	128			

TABLE D6 : Analysis of Variance Posttest 1

Dependent Variable Hypothesis 12: Using alternative examples of content to reinforce or test concepts.

Category: Years of Experience

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx. Significance Probability of F Stat.
Between Categories	25280.02835035	9	2808.890203894	2.04595	0.040
Within Categories	163375.84761810	119	1372.90628251		
Total	188655.87596893	128			

TABLE D7 : Simple Correlations of Card-Sort Task Scores With Questionnaire Total

Posttest 1

	C-S-1	C-S-2	C-S-3	C-S-4	C-S-5	C-S-6	C-S-7	C-S-8	C-S-9	C-S-10	Q-Tot.
C-S 1	1.00000										
C-S 2	0.03177	1.00000									
C-S 3	0.12120	-0.02364	1.00000								
C-S 4	-0.11785	0.19603	-0.04878	1.00000							
C-S 5	-0.04463	0.00400	0.01844	0.00083	1.00000						
C-S 6	0.07059	0.04568	0.00964	0.02991	0.02719	1.00000					
C-S 7	0.08835	0.01671	0.27157	0.00369	0.00866	0.13210	1.00000				
C-S 8	0.03412	-0.00263	-0.01097	0.04467	0.12633	-0.02489	0.07217	1.00000			
C-S 9	-0.01561	-0.03349	0.11018	0.02118	-0.03509	0.15000	0.07842	-0.04860	1.00000		
C-S10	0.05689	0.06167	0.06466	-0.00320	0.05847	0.25695	0.13599	0.09278	0.08052	1.00000	
Q-Tot.	-0.10319	-0.00511	-0.08317	0.05314	0.01289	-0.05444	-0.10132	-0.05372	0.07185	-0.00578	1.00000

TABLE D8 : Simple Correlations of Picture Task Scores With Questionnaire Total

POSTTEST 1

	Var No.					
Picture A	180	1.00000				
Picture B	182	0.04181	1.00000			
Picture C	183	0.12882	0.41280	1.00000		
Picture D	184	0.03914	0.33189	0.30338	1.00000	
Q-Tot.	179	0.46676	-0.12232	0.05554	-0.05827	1.00000
		Pic-A	Pic-B	Pic-C	Pic-D	Q-Tot
		180	182	183	184	179

TABLE D9 : Simple Correlations of Analysis of Picture, Card-Sort, and Questionnaire Total

POSTTEST 1

Card-Sort Total	1.00000		
Questionnaire Total	-0.07252	1.00000	
Picture Task Total	-0.00047	0.28085	1.00000
	C-S Tot.	Q-Total	P-Total

TABLE D10 : Simple Correlations between Questionnaire and Last 10 Items

POSTTEST 1

C 65	1.00000									
C-66	-0.07780	1.00000								
C-67	0.27583	-0.17602	1.00000							
C-68	0.27827	-0.38285	0.15248	1.00000						
C-69	0.36174	-0.25435	0.27051	0.32182	1.00000					
C-70	0.01410	0.25506	0.07070	-0.05803	-0.02139	1.00000				
C-71	-0.11979	0.07533	0.00267	-0.13990	-0.03678	0.08642	1.00000			
C-72	-0.10443	0.03839	0.13422	0.18125	0.05856	0.10524	-0.01793	1.00000		
C-73	0.00254	0.13957	0.00209	-0.06006	-0.13206	-0.01726	0.12818	0.06257	1.00000	
C-74	0.16529	-0.03197	0.03733	-0.00709	0.07191	0.02619	0.01635	-0.16105	0.10968	1.00000
C-75	0.09672	-0.11413	0.05671	0.13670	0.13727	-0.08547	-0.05504	0.09635	0.00632	0.21364	1.00000

REDISTRIBUTION OF CLINICAL CHOICES:

PRETEST, POSTTEST 1, POSTTEST 2

Note: Blank spaces (-----) indicate no response.

TABLE D11 The Most Important Characteristics of My Students - Q.I.A.

	0	1	2	3	4	5	6	7
	44.38	2.81	0.28	9.83	20.79	5.62	9.83	6.18
Pretest	43.54	3.93	2.53	10.67	16.57	7.02	7.02	8.71
	62.36	3.37	1.40	6.18	9.55	3.65	9.27	4.21
	30.08	2.26	----	24.81	20.30	5.26	9.02	8.27
Posttest 1	41.35	3.76	1.50	15.04	23.31	5.26	6.02	3.76
	60.90	1.50	----	7.52	14.29	----	9.77	6.02
	37.97	10.13	----	10.13	27.85	6.33	3.80	3.80
Posttest 2	45.57	6.33	1.27	3.80	22.78	8.86	6.33	5.06
	64.56	1.27	1.27	7.59	13.92	5.06	2.53	3.80

TABLE D12: Factors in Students Requiring Adjustment of My Teaching - Q. I.C.

	0	1	2	3	4	5	6	7
Pretest	44.94	8.99	1.12	2.53	21.63	1.69	1.12	17.98
	62.08	5.06	0.84	4.49	9.83	2.25	3.09	12.36
	71.63	1.97	1.97	2.25	8.71	2.25	2.53	8.71
	85.67	1.40	1.12	2.25	2.53	0.56	2.25	4.21
Posttest 1	37.59	12.78	0.75	1.50	18.80	1.50	5.26	21.80
	48.87	12.78	1.50	1.50	15.04	2.26	5.26	12.78
	75.94	3.01	0.75	1.50	7.52	1.50	3.01	6.77
	85.71	3.01	2.26	-----	6.02	-----	1.50	1.50
Posttest 2	31.65	12.66	-----	3.80	26.58	2.53	-----	22.78
	62.03	8.86	-----	3.80	15.19	2.53	2.53	5.06
	75.95	3.80	-----	2.53	6.33	1.27	1.27	8.86
	87.34	3.80	-----	-----	5.06	1.27	1.27	1.27

TABLE D13 : In What Ways Are You Trying to Change Your Students? - Q. I.B

	0	1	2	3	4	5	6	7	8
Pretest	35.11	8.43	1.40	32.58	4.49	7.58	7.58	2.25	0.56
	41.29	7.02	-----	26.40	7.58	9.27	5.62	1.69	1.12
	45.22	1.40	-----	23.88	2.81	21.07	4.21	0.84	0.56
	66.01	1.97	-----	13.48	2.53	12.92	2.81	0.28	-----
Posttest 1	20.30	13.53	1.50	37.59	4.51	9.77	7.52	4.51	0.75
	36.84	15.04	2.26	20.30	6.02	13.53	3.76	1.50	0.75
	33.83	3.01	-----	27.07	3.76	27.07	4.51	-----	0.75
	60.90	1.50	-----	13.53	3.76	17.29	2.26	0.75	-----
Posttest 2	32.91	3.80	-----	39.24	6.33	8.86	8.86	-----	-----
	43.04	5.06	-----	30.38	2.53	10.13	7.59	-----	1.27
	32.91	1.27	-----	35.44	1.27	26.58	2.53	-----	-----
	67.09	1.27	-----	10.13	2.53	15.19	1.27	1.27	1.27

TABLE D14: The Goals in Social Sciences - Results Q. IV.

	0	1	2	3	4	5	6	7	8
Pretest	62.92	4.78	0.28	23.60	1.40	3.09	0.56	1.97	1.40
	73.31	4.78	0.56	15.17	0.84	1.69	0.56	1.40	1.69
	81.74	2.81	1.12	7.58	0.84	1.97	1.69	1.69	0.56
	84.83	3.37	0.28	7.02	0.56	1.40	0.28	0.56	1.69
	90.17	2.53	0.28	4.49	----	0.84	----	1.40	0.28
	92.98	3.37	----	1.97	0.84	0.28	0.56	----	----
Posttest 1	55.64	9.02	0.75	24.81	2.26	3.01	0.75	2.26	1.50
	71.43	8.27	1.50	9.77	----	3.01	0.75	2.26	3.01
	78.20	3.01	0.75	11.28	----	0.75	0.75	2.26	3.01
	90.23	0.75	----	6.77	0.75	-----	-----	-----	0.75
	91.73	----	1.50	3.76	0.75	0.75	-----	-----	1.50
	96.24	0.75	----	0.75	0.75	-----	0.75	-----	0.75
	64.56	6.33	1.27	18.99	1.27	3.80	1.27	-----	2.53
	64.56	5.06	2.53	20.25	1.27	3.80	1.27	-----	1.27
	79.75	2.53	1.27	12.66	-----	1.27	-----	1.27	1.27
	89.87	2.53	----	7.59	-----	-----	-----	-----	-----
	92.41	----	----	5.06	1.27	-----	-----	1.27	-----
	96.20	----	----	1.27	-----	1.27	-----	-----	1.27

TABLE D15: Categories of Disappointing Results in Social Studies - Q. V.B.

	0	1	2	3	4	5	6	7	8
Pretest	71.35	3.37	0.28	11.52	9.55	1.12	1.40	0.56	0.84
	84.83	3.93	0.28	6.18	3.09	0.56	0.28	0.84	-----
	92.13	1.40	-----	2.25	2.53	-----	0.28	-----	1.40
Posttest 1	54.89	6.77	1.50	14.29	18.80	-----	0.75	0.75	2.26
	77.44	3.76	0.75	5.26	11.28	0.75	0.75	-----	-----
	90.23	0.75	0.75	5.26	0.75	-----	1.50	-----	0.75
Posttest 2	51.90	8.86	1.27	22.78	13.92	-----	-----	-----	1.27
	75.95	6.33	1.27	7.59	6.33	-----	2.53	-----	-----
	88.61	-----	-----	2.53	2.53	1.27	-----	5.06	-----

TABLE D16: Adjustments That Should Be Made In My Teaching In Order To Reach Goals - Q. III

	0	1	2	3	4	5	6	7	8	9
	75.56	0.28	0.28	-----	3.09	0.28	3.09	0.84	4.21	12.36
Pretest	82.02	0.28	0.28	0.28	2.81	0.84	2.81	1.40	1.97	7.30
	91.01	0.56	----	0.28	1.69	----	0.84	1.12	2.25	2.25
	61.65	----	----	----	6.02	1.50	13.53	4.51	1.50	11.28
Posttest 1	77.44	0.75	1.50	0.75	2.26	----	9.77	3.76	0.75	3.01
	89.47	----	-----	-----	3.76	0.75	3.76	0.75	----	1.50
	55.70	1.27	-----	-----	5.06	-----	25.32	5.06	2.53	5.06
Posttest 2	74.68	----	-----	1.27	3.80	-----	10.13	3.80	1.27	5.06
	88.61	----	-----	-----	2.53	-----	3.80	1.27	----	3.80

TABLE D17: Key Factors in the Instructional Environment I Control - Q. II. A.

	0	1	2	3	4	5	6
Pretest	84.27	-----	1.40	4.78	6.46	2.81	0.28
	84.83	-----	0.84	2.53	6.18	4.78	0.84
	89.61	-----	0.28	1.40	3.37	4.78	0.56
	94.66	-----	0.28	0.84	3.09	0.84	0.28
Posttest 1	86.47	-----	-----	7.52	2.26	3.01	0.75
	82.71	0.75	-----	2.26	2.26	10.53	1.50
	84.21	0.75	-----	4.51	2.26	7.52	0.75
	93.98	0.75	0.75	-----	----	3.01	1.50
Posttest 2	89.87	-----	-----	5.06	1.27	3.80	-----
	92.41	-----	-----	1.27	2.53	3.80	-----
	89.87	-----	-----	5.06	1.27	3.80	-----
	94.94	-----	-----	2.53	-----	2.53	-----

TABLE D18: What I Attempt To Be. - Q. II. C.

	0	1	2	3	4	5	6	7	8	9
Pretest	73.60	0.28	0.28	-----	-----	0.28	19.94	3.65	1.97	-----
	70.79	0.28	-----	1.12	1.12	----	21.07	4.21	1.40	-----
	84.27	0.56	0.56	0.56	0.84	0.28	9.55	2.53	0.84	-----
	88.20	0.84	-----	-----	0.56	----	7.02	2.25	0.84	0.28
Posttest 1	75.94	-----	-----	-----	-----	----	20.30	2.26	1.50	-----
	75.19	-----	0.75	-----	0.75	----	15.04	3.01	3.01	2.26
	75.19	0.75	-----	-----	-----	----	11.28	1.50	0.75	-----
	90.98	-----	-----	0.75	1.50	----	4.51	----	1.50	0.75
Posttest 2	74.68	-----	-----	1.27	-----	----	18.99	3.80	1.27	-----
	68.35	-----	-----	-----	1.27	----	21.52	2.53	5.06	1.27
	79.75	-----	1.27	-----	1.27	----	11.39	5.06	1.27	-----
	87.34	-----	1.27	-----	-----	----	10.13	----	----	1.27

TABLE D19: Resources I Use With My Students in Social Studies or Social Science - Q. II. B.

	0	1	2	3	4	5	6	7	8	9
Pretest	85.39	2.53	1.69	1.69	7.58	0.56	-----	0.28	0.28	-----
	83.15	1.69	1.97	1.69	8.15	1.97	-----	0.56	0.56	0.28
	80.62	3.37	2.25	1.40	9.83	2.25	-----	-----	-----	0.28
	82.30	2.81	2.25	1.69	8.15	2.53	0.28	-----	-----	-----
Posttest 1	78.95	3.76	1.50	3.76	7.52	1.97	-----	1.50	-----	0.75
	81.95	3.76	2.26	2.26	6.77	1.50	-----	1.50	-----	-----
	76.69	3.76	4.51	2.26	9.77	2.26	-----	-----	0.75	-----
	84.21	3.76	1.50	2.26	5.26	1.50	0.75	-----	-----	0.75
Posttest 2	77.22	-----	3.80	1.27	16.46	1.27	-----	-----	-----	-----
	83.54	1.27	5.06	2.53	6.33	1.27	-----	-----	-----	-----
	77.22	1.27	3.80	3.80	11.39	1.27	-----	-----	1.27	-----
	70.89	3.80	2.53	6.33	13.92	-----	-----	1.27	-----	1.27

APPENDIX E

TABLE E1 : Analysis of Variance Posttest 2

Dependent Variable Hypothesis 1: Using overt behavior for evaluation

Category: Grade Level

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx. Significance Probability of F Stat.
Between Categories	2311485.87658691	6	385247.64609528	2.18110	0.056
Within Categories	11657601.24658203	66	176630.32191849		
Total	13969087.12329102	72			

TABLE E2 : Statistics for Each Category Posttest 2

Dependent variable Hypothesis 1: Using overt behavior for evaluation.

Category: Grade Level

Category	Freq.	Mean	Standard Deviation
	69	40.109	440.471
Grade 3	28	-18.86	377.82
Grade 4	22	22.91	406.99
Grade 5	12	-44.00	522.73
Grade 6	7	64.00	468.92

TABLE E3 : Analysis of Variance Posttest 2

Dependent Variable Hypothesis 4: Selecting next strategy by diagnosis and towards objectives.

Category: Socio-economic

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx. Significance Probability of F Stat.
Between Categories	8394.34757495	3	2798.11585832	2.71409	0.051
Within Categories	71136.17297363	69	1030.95902860		
Total	79530.52054787	72			

TABLE E4 : Statistics for Each Category Posttest 2

Dependent variable Hypothesis 4: Selecting or tuning the next teaching strategy towards the objectives.

Category: Socio-economic

Category	Freq.	Mean	Standard Deviation
	73	0.273	33.235
Middle-mixture	25	8.80	26.51
Suburban	6	24.00	41.26
Rural	5	-2.40	31.70
Urban	37	-8.97	34.05

TABLE E5 : Analysis of Variance Posttest 2

Dependent Variable Hypothesis 9: Using problem situations involving differences in values for the purpose of training in problem-resolving and decision-making.

Category: Grade Level

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approxi.Significance Probability of F Stat.
Between Categories	1978160.34060669	6	329693.39009857	2.20613	0.053
Within Categories	9863319.54980469	66	149444.23560333		
Total	11841479.89038086	72			

TABLE E6 : Statistics for Each Category Posttest 2 Dependent variable Hypothesis 9: Using problem situations involving differences in values for the purpose of training in problem-resolving and decision-making.

Category: Grade Level

Category	Freq.	Mean	Standard Deviation
	69	-120.877	405.543
Grade 3	28	-251.143	396.65
Grade 4	22	-181.45	357.82
Grade 5	12	136.67	349.32
Grade 6	7	88.00	435.69

TABLE E7 : Analysis of Variance Posttest 2

Dependent Variable Hypothesis 5: Using open-ended questions for diagnostic purposes.

Category: Years of Experience

Source of Variance	Sum of Squares	Degs. of Freedom	Mean Square	F Statistic	Approx. Significance Probability of F Stat.
Between Categories	3398536.44659424	10	339853.64466095	2.04724	0.043
Within Categories	10292364.59448242	62	166005.88055801		
Total	13690901.04101563	72			

TABLE E8: Statistics for each category Posttest 2 Dependent variable Hypothesis 5: Using open-ended questions for diagnostic purposes.

Category: Years of Experience

Category	Freq.	Mean	Standard Deviation
	72	16.77	436.06
1 year	3	378.67	327.93
2 years	8	-102.00	325.71
3 - 4 years	8	207.00	393.84
5 - 9 years	6	-78.67	473.54
10 -14 years	9	-136.89	559.81
15 -19 years	6	42.67	408.29
20 -24 years	6	238.67	421.42
25 -34 years	8	-34.00	413.28
35 -44 years	11	-296.73	310.32
45 or more years	7	321.14	351.32

TABLE E9: Simple Correlations of Card-Sort Task Scores with Questionnaire Total

Posttest 2

C-S 1	1.00000										
C-S 2	0.10218	1.00000									
C-S 3	0.06676	-0.06429	1.00000								
C-S 4	0.06868	-0.02370	-0.09050	1.00000							
C-S 5	-0.10194	-0.00516	0.12809	-0.03660	1.00000						
C-S 6	0.16529	-0.03353	0.16446	-0.09325	0.10557	1.00000					
C-S 7	0.16956	-0.04414	0.12304	-0.25113	-0.13550	0.06173	1.00000				
C-S 8	0.32135	0.23727	0.04853	0.09325	-0.10557	-1.01741	0.02235	1.00000			
C-S 9	0.13410	0.04315	0.03298	0.15001	0.06665	0.26315	-0.06549	-0.05102	1.00000		
C-S10	0.18202	0.07435	0.15091	-0.09752	0.00144	0.10846	0.13346	-0.10846	0.11030	1.00000	
Q-Tot	-0.01539	0.18719	0.10403	0.05899	0.09585	0.11769	0.08133	0.04916	0.18059	0.02163	1.00000
	C-S-1	C-S-2	C-S-3	C-S-4	C-S-5	C-S-6	C-S-7	C-S-8	C-S-9	C-S-10	Q-Tot.

TABLE E10: Simple Correlations of Picture Task Scores With Questionnaire Total

POSTTEST 2

	Var No.					
Picture A	180	1.00000				
Picture B	182	0.04878	1.00000			
Picture C	183	0.08398	0.50411	1.00000		
Picture D	184	-0.00870	0.42493	0.49094	1.00000	
Q-Tot.	179	0.42642	-0.11536	-0.00149	-0.14461	1.00000
		Pic-A	Pic-B	Pic-C	Pic-D	Q-Tot.
		180	182	183	184	179

TABLE E11: Simple Correlations of Analysis of Picture, Card-Sort, and Questionnaire Total

POSTTEST 2

Card-Sort Total	1.00000		
Questionnaire Total	0.22208	1.00000	
Picture Total	0.13014	0.19842	1.00000
	C-S Tot.	Q - Tot.	P-Tot.

TABLE E12: Simple Correlations Between Questionnaire and Last 10 Items

POSTTEST 2

C-65	1.00000									
C-66	0.16730	1.00000								
C-67	0.40072	0.23520	1.00000							
C-68	0.30373	-0.17479	0.35445	1.00000						
C-69	0.06148	-0.04810	0.29801	0.43140	1.00000					
C-70	0.20140	0.44675	0.34747	0.21743	0.06960	1.00000				
C-71	0.23525	-0.06654	0.20269	0.00367	0.02167	0.02151	1.00000			
C-72	0.04061	0.15274	0.17774	-0.06560	0.06231	-0.05776	-0.18262	1.00000		
C-73	0.14467	0.05137	0.14514	-0.11632	-0.10644	0.16073	0.28506	0.00938	1.00000	
C-74	-0.08408	0.09921	0.02073	-0.06877	-0.04418	-0.08696	0.05952	0.00638	0.02167	1.00000
C-75	-0.08408	0.05185	-0.07025	-0.06877	0.02167	-0.12312	-0.01885	-0.05662	0.02167	0.29464	1.00000

TABLE E13: Behavior Not Seen Only As Discipline Problem

C1 - Q.I.A.

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
94.10%	5.90%	100%*	0

*Change from pretest to posttest 2 nonsignificant.
Average change: ≠ 5.90%

TABLE E14: Behavior Not Seen Only As Discipline Problem

C1-Q.I.C.

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
93.82%	6.18%	94.94%*	5.06%

Average change: ≠ 1.12%

TABLE E15: Not Describe Physical Characteristics Without

Behavioral Result. Q.I.C.

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
92.13%	7.87%	95.49%	4.51%

Average change: ≠ 2.81%

TABLE E16: Factors in Students Requiring Adjustment of My Teaching: Observable - Q.I.C

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	53.73%	46.35%	70.89%*	29.11%
2nd mentioned	37.64	62.36	41.77	58.23
3rd mentioned	27.25	72.75	22.78*	77.22
4th mentioned	12.92	87.08	8.86*	91.14

Composite average change: ≠ 3.29%

TABLE E17: Goals in Social Studies Are Observable Behavior

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	12.64%	87.36%	21.52%*	78.48%
2nd mentioned	14.33	85.67	20.25*	79.75
3rd mentioned	10.96	89.04	20.25*	79.75
4th mentioned	6.74	93.26	11.39*	88.61
5th mentioned	7.02	92.98	7.59*	92.41
6th mentioned	5.34	94.66	2.53*	97.47

Composite average change: ≠ 3.40%

TABLE E18: Social Studies Results is Observable Behavior - Q.IV.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	15.45%	84.55%	22.78%*	77.22%
2nd mentioned	14.89	85.11	22.78*	77.22
3rd mentioned	9.27	90.73	13.92*	86.08
4th mentioned	7.02	92.98	10.13*	89.87
5th mentioned	4.49	95.51	3.80*	96.20
6th mentioned	3.93	96.07	2.53*	97.47

Composite average change: ≠ 3.66%

TABLE E19: Evidence for Evaluation: Describing Behavior Q. V.A.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	54.49%	45.51%	77.22%*	22.78%
2nd mentioned	44.38	55.62	69.62*	30.38
3rd mentioned	32.87	67.13	54.43*	45.57

Composite average change: ≠ 23.09%

TABLE E20: Evidence for Evaluation: Uses Observation As A Technique - Q. V.A

Pretest Responses fulfilled clinical criterion?			Posttest 2 Responses fulfilled clinical criterion?	
Yes	No		Yes	No
89.61%	10.39%		88.61%*	11.39%

Average change: -1.00%

TABLE E21: Disappointing Outcomes in Social Studies: Connecting Learning to Behavior - Q. V.B

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	9.83%	90.17%	49.37%*	50.63%
2nd mentioned	4.49	95.51	26.58*	73.42
3rd mentioned	2.81	97.19	11.39*	88.61

Composite average change: ≠ 23.45%

TABLE E22: Evaluation in New Situations - Q. V.A

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
4.21%	95.79%	10.53%*	89.47%

Average Change: ≠ 13.51%

TABLE E23: Evidence for Evaluation: CAV Goals Mentioned -Q.V.A

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
1.97%	98.03%	12.03%*	87.97%

Average change: ≠ 15.75%

TABLE E24: Adjusting Teaching - Q.I.C.

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
5.06%	94.94%	7.59%*	92.41%

Average change: ≠ 2.53%

TABLE E25: Connects Teaching Strategy to Characteristics of Students - Q. II.D

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No.
1st mentioned	21.63%	78.37%	45.57%	54.43%
2nd mentioned	16.01	83.99	25.32*	74.68
3rd mentioned	8.99	91.01	10.13*	89.87

Composite average change: ≠ 8.80%

TABLE E26: What I Attempt to Be: Not Mentioned Authoritarian - Q. II.C.

Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
Yes	No	Yes	No
88.48%	11.24%	96.20%*	3.01%

TABLE E27: The Most Important Characteristics of My Students Q. I.A.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	55.62%	44.38%	59.49%*	40.51%
2nd mentioned	56.46	43.54	54.43*	45.57
3rd mentioned	37.64	62.36	35.44	64.56

Composite average change: -0.12%

TABLE E28: Factors in My Students Requiring Adjustment in Teaching - Q.I.C.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	54.78%	44.66%	68.35%*	31.65%
2nd mentioned	37.92	61.80	37.97*	62.03
3rd mentioned	28.37	71.63	24.05	75.95
4th mentioned	14.33	85.67	12.66*	87.34

Composite average change: ≠ 1.91%

TABLE E29: Ways I Am Trying to Change My Students - Q.I.B.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	64.89%	35.11%	67.09%*	32.91%
2nd mentioned	58.99	41.01	56.96*	43.04
3rd mentioned	54.78	45.22	67.09*	32.91
4th mentioned	33.99	66.01	32.91*	67.09

Composite average change: ↗ 2.85%

TABLE E30: Categories of Social Studies Goals - Q.IV.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	36.80%	62.92%	35.44%*	64.56%
2nd mentioned	26.69	73.31	35.44*	64.56
3rd mentioned	17.98	81.74	20.25*	79.75
4th mentioned	15.17	84.83	10.13*	89.87
5th mentioned	10.11	89.61	7.59*	92.41
6th mentioned	7.02	92.98	3.80*	96.20

Average composite change: -.18%

TABLE E31: Categories of Disappointing Outcomes in Social Studies - Q. V.B.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	28.65%	71.35%	48.10%*	51.90%
2nd mentioned	14.61	85.11	24.05*	75.95
3rd mentioned	7.58	91.85	11.39*	88.61

Composite average change: ↗ 10.90%

TABLE E32: Adjustments That Should Be Made in My Teaching to Reach Goals - Q. III.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	27.44%	75.56%	44.30%*	55.70%
2nd mentioned	17.70	82.30	25.32*	74.68
3rd mentioned	8.99	90.73	11.39	88.61

Composite average change: ≠ 9.96%

TABLE E33: Key Factors I Control - Q. II.A.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	15.45%	84.27%	10.13%*	89.87%
2nd mentioned	15.17	84.83	7.59*	92.41
3rd mentioned	10.39	89.61	10.13*	89.87
4th mentioned	5.34	94.66	5.06*	94.94

Composite average change: -4.92%

TABLE E34: What I Attempt to Be. - Q. II.C

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	26.12%	73.88%	25.32%*	74.68%
2nd mentioned	29.49	70.51	31.65*	68.35
3rd mentioned	15.73	84.27	20.25*	79.75
4th mentioned	11.24	88.76	12.66*	87.34

Composite average change: ≠ 1.82%

TABLE E35: Resources I Use in Social Studies - Q. II.B.

	Pretest Responses fulfilled clinical criterion?		Posttest 2 Responses fulfilled clinical criterion?	
	Yes	No	Yes	No
1st mentioned	14.61%	85.39%	22.78%	77.22%
2nd mentioned	16.85	83.15	16.46*	83.54
3rd mentioned	19.38	80.62	22.78*	77.22
4th mentioned	17.70	82.30	29.11*	70.89

Composite average change: ↗ 5.64%

TABLE E36: Inter-item Correlations - Cluster I - Posttest 2

	Observable Characteristics
Intellectual behavior	.75

Note: Both from Q.I.A: Most important characteristics of my students.

TABLE E37: Inter-item Correlations - Cluster II -Posttest 2

	Observable Characteristics
Intellectual behavior	.80

Note: Both from Q. I.A: Most important characteristics of my students.

TABLE E38: Inter-item Correlations - Cluster III-Posttest 2

	Variety	Observable	Intellectual Behavior
Variety	1.00	.88	.83
Observable		1.00	.79
Intellectual Behavior			1.00

Note: All from Q. I.C: Factors requiring adjustment of teaching.

TABLE E39: Inter-item Correlations - Cluster IV -Posttest 2

	Observable Characteristics
Intellectual behavior	.69

Note: Both from Q. I.C: Factors requiring adjustment of teaching.

TABLE E40: Inter-item Correlations - Cluster V -Posttest 2

	More Than One Method For Reaching Goals
Connects Teaching Strategy To Characteristics of Students	.70

TABLE E41: Inter-item Correlations - Cluster VI-Posttest 2

	Result Matches Goal	Result Matches Goal	Result Matches Goal	Result Matches Goal	Result Matches Goal
Result Matches Goal	1.00	.76	.69	.42	.33
Result Matches Goal		1.00	.74	.55	.32
Result Matches Goal			1.00	.82	.50
Result Matches Goal				1.00	.57
Result Matches Goal					1.00

Note: All from Q. IV.

TABLE E42: Inter-item Correlations - Cluster VII-Posttest 2

	Improved Skills of Social Interaction
Connects Social Science Learning to Behavior of Children	.72

Note: Both from Q. V: Disappointing outcomes in Social Studies.

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