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AUTHOR   Duffy, Gerald G.
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ABSTRACT

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prevalence of technical teacher behavior. Implications for the
reading profession are presented in terms of teacher education,
reading research, and possible cooperative ventures between research
on reading and research on teaching. The prevalent theme throughout
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TEACHER EFFECTIVENESS RESEARCH:

IMPLICATIONS FOR THE READING PROFESSION

Gerald G. Duffy

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Abstract

Designed to create a foundation for collaboration between research on teaching and research on reading, this critical review of teacher effectiveness first provides a historical perspective as a means for creating a "common ground" between the two fields. Teacher effectiveness findings are then presented in two major categories. The first examines direct instruction, classroom management, and psychological conditions as these contribute to opportunity to learn. The second examines the research on teacher planning and teacher decision making as these illustrate the prevalence of technical teacher behavior. Implications for the reading profession are presented in terms of teacher education, reading research, and possible cooperative ventures between research on reading and research on teaching. The prevalent theme throughout the review is the need for both reading and teaching research to begin looking beyond opportunity to learn and technical teacher behavior to examine the qualitative dimensions of teacher effectiveness.

TEACHER EFFECTIVENESS RESEARCH:
IMPLICATIONS FOR THE READING PROFESSION[1]

Gerald G. Duffy[2]

> In an old New Yorker cartoon, a
> psychiatrist says to a reading teacher
> on the couch, "Now, as I understand
> it, your problem began when little
> Susie Jones said that she didn't
> have a learning disability but that
> you had a teaching disability."

Reading professionals have been keenly aware of the recent

explosion of knowledge in language and language acquisition. The

resultant focus on the interactive nature of reading and on the

child's language processing has altered forever the way people

think about the nature of the reading process.

However, reading is not the only research revolution in town.

Another one--a revolution focused on the teaching process--has

altered understanding of life in classrooms just as the revolu-

tion in reading has altered understanding of the reading process.

Both the former, symbolized by but not limited to the Institute

for Research on Teaching at Michigan State University, and the latter,

symbolized by but not limited to the Center for the Study of Reading

at the University of Illinois, have great potential for improving

reading instruction in schools. To date, however, the two research revolutions have been moving forward "out of earshot" of each other. Research on reading reflects little of what has been discovered about teaching; the research on teaching reflects few of the findings about the reading process.

.I believe that collaborative efforts by the two research communities would have greater impact at the classroom level than independent ones. Consequently, this review of teacher effectiveness research is designed to be a first step in a dialogue between the two research communities. Since it is a review of teacher effectiveness, it must necessarily emphasize how research on teaching contributes to reading more than the reverse. Nevertheless, it is based on my faith that the two research communities have the potential to reciprocally inform each other and, ultimately, to make significant collaborative contributions to classroom reading instruction in the decade ahead.

Background

The research on reading has helped us understand the implicit contractual agreement between the writer and the reader in which the writer must establish "points of contact" between the message and the reader's experience (Tierney & LaZansky, 1980). Since my purpose is to encourage a collaborative joining of two diverse research communities, it is appropriate that I provide such "points of contact" and encourage the "schema-match" necessary for the goal of this paper to be achieved. These points of contact are discussed in three categories: the history of teacher effectiveness research, the evolving concept of teacher effectiveness, and conflicting conceptions of teaching.

The first point of contact involves an understanding of the massive evolution that has occurred in research on teaching in the past ten years. The history of this evolution is presented here in two sections: the "old" and the "new" research on teacher effectiveness.

The "Old" Teacher Effectiveness Research

Teacher effectiveness research is not new. To the contrary, it has been going on in one form or another for the entire twentieth century. Its impact prior to 1975 was meager, however. The American Educational Research Association Committee on the Criteria of Teacher Effectiveness (Barr, Bechdolt, Coxe, Gage, Orleans, Remmers, & Ryans, 1952) stated the case clearly when they said:

> The simple fact of the matter is that,
> after forty years of research on
> teacher effectiveness during which a
> vast number of studies have been carried
> out, one ca point to few outcomes that
> a superintendent of schools can safely
> employ in hiring a teacher or granting
> him tenure, that an agency can employ
> in certifying teachers, or that a
> teacher education faculty can employ
> in planning or improving teacher
> education programs.

Even 22 years later, Duncan and Biddle's (1974) statement that theirs is "the first text yet written that concerns the study of teaching" is a sad commentary on the significance of the "old" teacher effectiveness research.

What was the nature of this "old" research? Medley (1977a, 1979) and Duncan and Biddle (1974) provide excellent histories. Essentially, the "old" teacher effectiveness research had three

thrusts.

The first focused on teacher personality and educational characteristics as they related to student attitudes and achievement. The earliest studies of this type asked pupils to describe effective teachers, with lists of traits being produced that supposedly described effective teachers. This approach failed not only because the correlations between characteristics and achievement were low and inconsistant from study to study but because, as Medley (1977a) pointed out, the research was based on

> teachers perceived as effective. In
> no instance was any evidence adduced to
> show that teachers possessing these
> characteristics were actually more effective
> in promoting pupil achievement of any of
> the goals of education. That is, the
> lists were never shown to be valid.
> Insofar as the lists described anyone,
> they described the teacher who looks
> effective.

Perhaps Artley (1969) provided the epitaph for this research, from the standpoint of reading professionals as well as the profession as a whole, when he said:

> As a result, they have described for us
> a kind of invisible, ghost-like person
> who, in fact, may not exist. She
> has been found to be cooperative,
> sympathetic, poised. She is well-
> groomed, healthy, imaginative, and
> cooperative. She gets along with her
> co-workers and her principal and she
> gets her reports in on time. As one
> of my friends said, 'she has the same
> characteristics we expect from a
> good bar girl.'

A second type of "old" effectiveness research, quite familiar

to the reading professional, attempted to prove one method superior

to another. This research, like most "old" studies, ignored the

instructional processes and classroom interactions which are the

essence of teaching and, like the First Grade Studies (Bond &

Dykstra, 1967) and others, contributed little to the understanding

of what makes an effective teacher.

The third major type, emerging in the late 1950's and early

1960's, emphasized systematic observation of classroom interactions,

particularly verbal interactions (Flanders, 1970; Medley & Mitzel,

1963). Amazingly, this is the first time that researchers began

looking inside classrooms and, as such, it heralded the approach

of the "new" research on teacher effectiveness that was to follow

in the 1970's. Generally speaking, however, the early forms of this

research had limited initial impact, largely because of what Duncan

and Biddle (1974) call "commitments"--the conducting of research in

order to prove the importance of particular values held by the

researcher.

In sum, the "old" research did little to explain teacher

effectiveness. In 1975, Rupley (Note 1) was forced to describe teacher

effectiveness in reading as a "puzzle phenomenon" consisting of

bits and pieces that could not be fitted together to say anything

meaningful about how to conduct an effective reading program.

Duncan and Biddle (1974) summarize the impact of the "old" research

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by saying:

> Much research on teacher effectiveness
> has been conducted, but little knowledge
> has been developed from the effort.
> Indeed, so little has been known that
> some educators have concluded that
> teaching is unknowable--one of the
> mystic skills akin to preaching or
> artistic creativity. Other educators
> have considered the activities of
> teaching to be so obvious as to need no
> research at all. Thus, master teachers
> write books in which they recommend the
> strategies they have found workable in the
> classroom, novelists such as Jonathan
> Kozol or Bell Kaufman entertain us with
> archtypical descriptions of teaching
> practices from a single school, and
> curriculum innovators outline new teaching
> programs in expectation that they will
> be conducted in the manner specified
> and that they have the effects desired.
> Still other educators have, in a sense,
> given up on teaching and concluded that
> pupils will learn regardless of--or in
> spite of--teacher's effort or that good
> teaching consists merely of the provision
> for a "supportive learning environment."

The "New" Teacher Effectiveness Research

The pre-1970 research did not provide substantive data regard-

ing the nature of teacher effectiveness. What happened in the

1970's to change this?

The critical difference was that observations came into use

to determine what goes on inside classrooms. Observation was not

a regular part of the "old" research studies and no

one knew what was actually happening, particularly as it related

to the instructional interaction between teachers and students.

The result was that assumptions about what happened in classroom
instruction went largely unchallenged and teaching principles,
generalizations, and theories based on these assumptions were un-
critically accepted. Recent research, in contrast, has been
dominated by classroom observation. Two methodologies have
emerged in which observation has been used in different ways to
achieve different purposes: process-product studies and descrip-
tive studies.

Process-product research. Process-product studies employ
observation tools that trained observers use when visiting class-
rooms to record how often a particular phenomenon noted on the
observation form occurs in actual practice. The combined observa-
tions are analyzed, with the individual teacher as the unit of
analysis, to determine the correlation between particular coded
items and achievement growth as determined by standardized achieve-
ment tests and/or by less formal attitude measures. Influenced
by the behavioristic tradition, the focus has been the overt acts
of teachers and the relation between the frequency of these acts
and various measurable outcomes. Historically, such research had
not been very successful. However, Rosenshine and Furst (1973) and
Duncan and Biddle (1974) created a comprehensible mosaic out of
what had previously been a confused and largely contradictory mass
of data and are credited with providing the springboard for the
growth and acceptance of this type of research. Subsequent

methodological improvements (see Brophy, Note 2) have since
solidified its position.

The process-product findings, expressed as middle-range
correlations that have been demonstrated to be consistent from
study to study, point to a strong relationship between certain
clusters of teacher behaviors and student outcomes. Further, and
most encouraging, these constellations of behaviors have been
validated in experimental studies (for excellent examples of such
experimental validations of process-product findings, see Anderson,
Evertson, & Brophy, 1979; Good & Grouws, Note 3; and Stanford's
Program on Teaching Effectiveness, Note 4). Medley (1977a) summarizes
the impact of the process-product research by stating that the
"risk that any of them (findings) will be disproven by future
research is slight."

Nevertheless, process-product research has not been without
critics. Conceptually, it has been criticized as too narrow and
prescriptive (Doyle, 1977; Cazden, Note 5), too simplified in the
face of classroom complexities (Fisher & Beliner, Note 6) and too
behavioristic rather than cognitive (Lanier & Shulman, Note 7).
Methodologically, the potential lack of reliability and validity
in the observation measures, and the design/analysis weaknesses
associated with correlational studies have all been criticized
(Koehler, 1977).

Descriptive research. Such criticisms contributed to the rise

of descriptive, or qualitative, research. As Koehler (1977) has
pointed out, qualitative research attempts to describe or define
the process, to determine what is rather than what should be. It
is less concerned with improvement and more concerned with under-
standing.

Despite the common devotion to classroom observation,
the differences between descriptive and the more improvement-
oriented process-product research are startling. While the process-
product researcher observes specific behaviors with a predetermined
observation form in multiple classroom settings, the descriptive
researcher observes a limited number of classrooms (sometimes only
one), avoids specifying the precise behaviors being sought and
records the classroom life (as well as impressions of this life)
in free-form field notes. In contrast to the process-product
research, descriptive research comes from an anthropological
tradition, is heavily influenced by cognitive psychology and cogni-
tive information processing, and serves as an umbrella for a variety
of types, including ethnography, participant observation, and
sociolinguistics, among others. Like the process-product research,
it has received criticism, with the focus being on the general
absence of outcome measures, the reliability problem inherent in
qualitative observation, limited sample size, and problems of
generalizability. Despite criticism and diversity of style, however,
descriptive research has produced a rich array of findings in the
past five years. tempering tendencies to use process-product findings

in narrow, prescriptive ways by highlighting the variability of
behavior in the classroom, the multiple complexities of classroom
life, the immense information-processing task faced by teachers, and
the multiple sociological forces that interact in the classroom.

The historical evolution of research on teacher effectiveness
is the first point of contact between the reading and teaching
communities. Because of the shift to observation of classroom
processes and because process-product and descriptive designs are
currently being used in creative combinations, the nature of teacher
effectiveness research has changed dramatically in the past 10 years.
To chalk off research on teaching on the basis of the way it used to be
would be an error.

The Expanding Concept of Teacher Effectiveness

The above historical evolution has expanded the concept of
teacher effectiveness, encompassing subtleties and complexities not
traditionally associated with the term. This modification is a
second point of contact.

Prior to about 1975, teacher effectiveness research focused
on determining the extent to which certain teacher behaviors pro-
duce greater amounts of specified pupil outcome. By 1975, this
research, largely conducted within the process-product paradigm,
had determined that certain patterns of teacher instructional

behavior make a major difference in pupil achievement.

This finding spurred a second research thrust, beginning in
about 1975, in which the importance of the teacher was assumed
and the questions focused more on why some teachers were more
effective than others. The basic hypothesis was that instructional
information processing and instructional decision making were the
keys. However, the studies, primarily descriptive in nature, con-
tradicted the hypothesis, suggesting instead that teaching is so
complex that teachers must limit the amount of information they
process and that, in fact, the demands of the workplace prevent
them from making significant decisions during the interactive phase
of teaching.

These findings have triggered a third set of studies, currently
underway, that examine the complexitites of the workplace as a
means for explaining why teachers are less reflective than hypothe-
sized. These studies have taken three forms, depending upon the
breadth with which the workplace is viewed. All, however, are united in
the belief that simply correlating teacher behavior with pupil out-
comes is insufficient in itself for understanding teacher effective-
ness.

At the first level, the workplace is the classroom, with the
complexity of teaching explained both in terms of technical
and social demands. Fisher (Note 8) describes the technical demands:

> Some of the broad areas in which teachers
> must be competent include organization,

> management, interpersonal relationships,
> planning and evaluation. . . Within these
> broad areas, teachers must develop and re-
> fine a multitude of sub-skills to
> accomplish the diagnosis, prescriptions,
> the presentation, monitoring and feed-
> back functions which support day-to-day.
> learning in the classroom. These skills
> cannot be implemented one at a time. The
> nature of teaching is such that several
> skills are required simultaneously.

Shulman (Note 9) describes the case for the social complexity

of classrooms:

> Classrooms are complexly nested social
> systems in which participants are
> engaged in jointly produced educational
> activities, reciprocally caused and
> effected, negotiating for opportunities
> and competing for attention and under-
> standing.

Hence, at the classroom level, research focuses on both

technical and social complexities. The explicit curriculum, the

"hidden" curriculum of implicit rules and procedures that govern

classroom life, and the ecological relationships among them are all

examined in order to understand why teachers appear to react in

conditioned ways rather than as reflective decision-makers.

At the next level, the workplace involves more than the

classroom. Here, Shulman (Note 9) argues that the teacher's world

encompasses the multiple role demands of the tutor, the classroom

teacher, the curriculum planner, and the organization member. He

suggests that the information processing of teachers is explained,

at least in part, by a "role strain" resulting from the teacher's

attempts to accommodate the multiple demands of these four contexts.

As such, he sees teaching as more than information processing; it

is also social-role processing and the teacher's mental life and its

impact on effectiveness cannot be understood unless the demands of

the multiplicity of teaching contexts and their respective task

environments are understood. As he summarizes:

> The teacher is working simultaneously
> as a tutor, instructor, pedagogue and
> organization member. Thus, the challenge
> of teaching is characterized by the need
> to work effectively within each level
> while also nimbly negotiating one's way
> across levels. Moreover, our concept
> of teacher effectiveness will surely
> be different depending upon the level
> at which we choose to define and assess
> effectiveness. (Shulman, Note 9)

At its broadest, the teacher's workplace is viewed as society

as a whole. As described by the "new sociologists," the complexi-

ties of teaching can be attributed to pressures that go beyond even

the organization level described by Shulman. In this view, these

complexities are best understood when examined from the perspective

of the teacher as a mediator and negotiator of a variety of explicit

and implicit pressures and mandates from the total society (Schwille,

Porter, Gant, Belli, Floden, Freeman, Knappen, Kuhs, & Schmidt, 1979).

Hence, the second point of contact between the reading and

teaching communities lies with understanding that the term "teacher

effectiveness" has been modified. The former, relatively simple

concept of a unidirectional linear process in which teacher

behaviors caused student outcomes in an input/output relationship
has evolved into a view of teaching as reciprocal interactions
between teacher and context with effectiveness being a multi-faceted
function of this interaction. Recent research shows teacher
effectiveness to be a far more complicated concept than was once
thought.

Conflicting Conceptions of Teaching

The third point of contact between reading and teaching
researchers is embedded in the conception each holds of teaching.
Despite past references to the importance of the teacher by read-
ing professionals such as Bond and Dykstra (1967), Ramsey (1962),
Artley (1969), and others, the reading profession as a whole has
placed little emphasis on the actual act of teaching. Reading
educators, for instance, are more likely to debate whether the
reading curriculum should reflect holistic or sub-skills analyses,
or whether basal texts or language experience is the "best approach",
than they are to discuss what teacher behaviors might stimulate
desired reading outcomes. Further, while researchers on teaching
emphasize te_cher mediation and guidance of learning, reading
professionals emphasize learner mediation, arguing that teacher
guidance impedes reading acquisition by constraining the "natural-
ness" of learning. Bringing these two divergent backgrounds
together is difficult. In an attempt to do so, the differences

will be discussed first as a function of situational context and, second, as a function of preserving the naturalness of language during instruction.

As a problem of situational context, the differences in conceptions of teaching can be understood by returning to Shulman's (Note 9) four levels of context: tutor, classroom instruction, curriculum development, and organization member. Historically, the reading profession has focused on understanding the nature of the reading process (a function of the third level). When translating this knowledge to practice, the emphasis has been on describing what reading is in methods courses and methods textbooks (a third-level function), organizing reading curriculum into basal texts, skill hierarchies, and curriculum guides (again, a function of the third level), and preparing clinicians and remedial reading specialists (a function of the first level). Hence, the reading professional emphasizes levels one and three. In contrast, however, researchers on teaching emphasize the second level—classroom instruction. This difference in perspective accounts for much of the difference in conceptions of teaching.

A common ground between the two groups might be the fact that classroom teachers represent the largest clientele for both research communities. While people in reading must certainly maintain their focus on the nature of reading, they nevertheless have a simultaneous responsibility for communicating their findings in terms of the classroom context shared by the bulk of their clientele. By assuming this responsibility, they could close the gap between the teaching conceptions held by reading and teaching researchers respectively.

Regarding the "naturalness" of language acquisition, research

on the reading process suggests that comprehension is created by

the reader, not the teacher, in response to the text, and that

comprehension is not something that teachers can place directly

into the heads of pupils. On the other hand, researchers on teaching

report convincing data indicating that patterns of teacher behaviors

do make a difference in producing achievement gains (including gains

in comprehension), and that many of the crucial behaviors involve

techniques of direct instruction, as opposed to more passive in-

structional approaches that call for less teacher intervention.

Herein lies a conflict.

Perhaps the two groups can be brought closer together on this

issue by re-considering the concept of "naturalness." Because pupils

create meaning out of their personalized experience backgrounds

does not necessarily mean that teachers should not expedite this

process by showing them how to create meaning; it only means that

the guidance should not force the child to substitute the teacher's

interpretation for his/her own. Hence, teachers can preserve the

naturalness of getting meaning while still performing the professional

task of teaching pupils how to get meaning. Collaborative efforts

by the two research communities in this area could be quite fruitful.

Summary

"Schematic mis-matches" could impede collaboration by the

reading and teaching research communities. Hopefully, the above

discussion of the evolution of teacher effectiveness research, the

resultant modification of the concept of teacher effectiveness,

and the potential conflict in conceptions of teaching will enhance

communication.

However, it should also be noted that communication is two-edged. The writer has a responsibility, but so does the reader. As stated by Tierney and LaZansky (Note 11):

> It is the responsibility of a reader
> to bring to a text conceptualizations
> which support a reasonable interpretation
> of the text rather than result in an
> abandonment of the author's message.

Major Teacher Effectiveness Findings

The seventies was a decade of growth for research on teaching. Many studies, both process-product and descriptive, were funded by the National Institute of Education or were conducted independently. The bulk of these focused on the teaching of basic skills (mostly reading and mathematics) in school settings where academic achievement has been traditionally at or below national norms. A multiplicity of findings emerged, but they can be discussed in terms of two major conclusions:

> 1. The most effective teachers of
>   basic skills generate the most
>   opportunity to learn.
>
> 2. Such teachers are technical
>   managers of instructional
>   materials and activities
>   rather than theory-driven and
>   reflective decision-makers.

These conclusions can have a far-reaching and significant impact on the perception of classroom teaching. However, as Medley (1977a) has pointed out:

> The profile of the effective
> teacher that emerges is not entirely
> consistent with the general consensus
> of how a good teacher behaves or with
> the way teacher educators train
> teachers to act.

Two points should be made about the above lack of congruence.

First, the conclusions about teacher effectiveness represent

classroom life as it currently is. Second, such reality does not

necessarily represent either what effectiveness should be or what

it can ultimately become. The findings do, however, serve as an

important foundation for learning more about the teaching process

and for making future teachers more effective than current ones.

Opportunity to Learn

Opportunity to learn is generally discussed in terms of

Carroll's (1963) model of school learning in which three pupil

variables--aptitude, ability, and perserverance--interact with both

opportunity to learn and quality of instruction to account for

learning outcomes. The findings from research on teaching reflect

three components of the opportunity to learn variable: direct

instruction, management, and psychological conditions.

Direct instruction. Direct instruction is a global concept,

largely associated with reviews by Rosenshine (1976, 1979, 1980)

that encompasses the variety of behaviors displayed by teachers in

classrooms where learning gains are great. These behaviors can be

discussed in terms of engaged time and teacher monitoring of pupil

activity.

In the classroom, a subject such as reading is allocated a

certain amount of instructional time. Engaged time is that propor-

tion of the allocated time in which the student is on task or

"engaged." The more time a student spends engaged in an academic

endeavor, the more that will be learned; the less time engaged,

the less that will be learned (Berliner, 1979; Rosenshine & Berliner, 1978). As Fisher, Berliner, Filby, Marliave, Cahen, and Dishaw (1980) said,

> Two classes might allocate the
> same amount of time to reading
> instruction, but one class might have
> almost twice as much real engaged
> learning time as the other. Since
> engagement rate has been shown to be
> highly variable across classes and
> since that variability has been
> empirically related to achievement,
> it is possible that increasing
> engagement rates will lead to
> increased achievements.

The engaged time concept is a clear and simple one. Unlike most clear and simple notions in education, however, this one repeatedly discriminates effective instruction from ineffective instruction.

The second component of direct instruction focuses on teacher monitoring behaviors that insure that pupils, once engaged, will remain engaged. These behaviors imply teacher-pupil interactions with which reading professionals have traditionally demonstrated some discomfort, but that have been validated in basic skills contexts in both primary grades (Anderson, Evertson, & Brophy, 1979) and remedial secondary classrooms (Stallings, Note 12). They indicate that the most effective teachers are those who are the most structured, the most in control, and the most directive. These are the teachers who monitor pupils' activities closely, who call for frequent repetition, and who drill. These are the teachers who move in small steps, who teach to over-learning, and who elicit response from and provide feedback to each individual student

(Berliner, 1979; Rosenshine, 1979; Brophy, Note 13). Such teacher
interaction is called "high structuring" by Gage (1978) while Good
(Note 14) prefers to call it "active teaching." Regardless of its
label, however, the data indicate that these behaviors do distinguish
effective basic-skills teachers from ineffective ones.

In summary, direct instruction creates opportunity to learn by
engaging pupils and by insuring that such engagement is maintained.
Perhaps Koeler's (1977) statement about direct instruction is the
most descriptive:

> In this model, the teacher supervises
> lessons and workbook activity, allows
> little free time or unsupervised student
> desk work and clearly communicates
> the goals of the lessons to the students.
> The teacher decides what activities will
> take place, but the students are
> actively involved in the lesson. Content
> coverage is extensive, and questions
> tend to be focused at a low cognitive
> level. These questions are geared to
> information which should already be
> known rather than to that which can be
> deduced or guessed. Teacher reinforce-
> ment rapidly follows most answers.
> Learning is organized around questions
> posed by the teacher or materials
> provided by the teacher. Teacher-
> student interactions are direct and
> academically oriented.

Classroom management. Effective teachers are also good classroom
managers; they create more opportunity to learn by organizing them-
selves and the classroom to enhance efficiency and minimize time
wastage. The importance of management is stated succinctly by
Good (Note 13).

> Teachers' managerial abilities
> have been found to relate positively
> to student achievement in every process-
> product study conducted to date.
> It appears that teacher managerial skills
> are necessary if reasonable pupil
> achievement is to occur.

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Its importance in reading particularly is emphasized by Leinhardt, Zigmond, and Cooley (Note 14), Duffy (Note 15), Roehler and Schmidt (Note 16), Zigmond, Leinhardt, and Cooley (Note 17), and others who point to the time lost because of poor management.

Management is another aspect of teaching that causes reading educators some difficulty. This is so for three reasons.

First, reading people seem to equate classroom management with skills-management systems. This is an erroneous association. Classroom management refers to techniques for generating maximum instructional time; monitoring pupil progress through a hierarchy of skills <u>may</u> be one aspect of generating more instructional time, but the two concepts are no synonymous.

Second, the academic heritage of reading professionals is closely tied to the tutoring of remedial students, where time management is less complex. In contrast to the clinic where the pupil typically receives the tutor's individual attention, time in the classroom is a limited commodity demanding what Shulman (Note 9) calls "distributional rules." Hence, the classroom teacher faces an "opportunity-to-learn" problem seldom faced by the clinician. As Brophy (Note 18) says,

> So long as teachers must deal with
> classes of 25 or 30 instead of
> tutoring single individuals, there
> will be trade-offs between meeting
> the needs of any individual and
> meeting the needs of other
> individuals or of the class as a
> group.

Third, even when reading educators understand the purpose of management, they tend to reject it because a common trade-off of teachers is to use routines as a way to maximize instructional

time and, to some people, routines imply mechanistic teacher-
pupil relationships. This is unfortunate since, rather than
inhibiting humanistic interactions, routines are the vehicles
effective teachers use to "distribute" time so that they are
personally engaged in as many meaningful interactions as possible
while keeping traffic manager and disciplinarian interactions to
a minimum.

The secret to effective management is the teacher's ability
to establish such routines as preventative measures. As Good
(Note 13) has said:

> The key behaviors that distinguish good
> classroom managers are those techniques which
> prevent misbehavior by eliciting student
> cooperation in general and involvement in
> assigned work specifically.

In addition, according to Anderson, Evertson, and Emmer (in press),
the most effective teachers convey the purposefulness and meaning-
fulness of academic activities, instruct students in the skills of
good behavior and select activities that reflect both students'
level of understanding and need for information. Other
crucial aspects of management are reported by Kounin (1970) and
Brophy and Putnam (1979).

In short, good management increases opportunity to learn
(or, more specifically, preserves for instructional purposes
larger amounts of the allocated instructional time). The strong
relationship between management, instruction, and greater learning
outcomes has caused Brophy (Note 19) to suggest that management skills
are closely linked with instructional skills--that good instructors
tend to be good managers and vice versa. Hence, classroom manage-
ment is one of the behavior clusters that distinguishes effective

teachers from ineffective ones.

Psychological conditions.. Discussion of opportunity to learn is often confined to the purely physical notion of time and time use. However, research on teaching also suggests that effective teachers create psychological opportunities to learn as well as physical ones. These psychological conditions create a climate that encourages pupils to make maximum use of the time provided and include expectations, efficacy, and success experiences.

Expectancy is the teacher's perception of how much (and how quickly a student can be expected to learn. Studies by McDonald and Elias (Note 20) and Brookover, Schweitzer, Schneider, Beady, Flood, and Wisenbaker (19,S) in the United States and by Rutter, Maughan, Martimore, Ouston, and Smith (1979) in the United Kingdom all indicate that effectiveness is distinguished from ineffectiveness by the teacher's belief that students can and do learn..

Efficacy is also a type of expectancy, but it refers to the teacher's perception of his/her ability to be successful as a teacher and the level of effort and persistance exhibited as a result. Reports by Brophy and Evertson (1976) and by Good (Note 13) support the importance of efficacy. As Brophy (Note 19) says:

> Typically, the more successful teachers have a "can do" attitude, perceiving their students as capable of learning the material and themselves as capable of teaching it to them effectively. These

teachers set higher goals than other
teachers, and they are more persistant
in laboring to meet these goals and
overcoming obstacles if necessary.

The third psychological condition is student success. When
students are engaged in tasks at which they are successful, they
achieve more than when they are engaged in tasks at which they
are unsuccessful. This concept is so crucial that the Beginning
Teacher Education Study researchers, prime investigators of time
as it relates to teacher effectiveness (Fisher et al., 1980),
include success as part of their definition of engaged time. The
implication, of course, is that time spent engaged in an excessively
difficult task creates negative pupil behaviors that impede oppor-
tunity to learn. In addition, pupil success is tied to improved
pupil attitudes. As Fisher et al. (1980) state,

> It is interesting to note that the high
> success component of learning is associated
> with more positive student attitudes.
> Successful students probably enjoy
> learning more because of their success.
> Failure, even when it is only occasional,
> appears to result in more negative
> attitude.

Brophy (Note 21) concurs, saying, "Students consistently given work
that is too difficult for them can be expected to give up and
eventually to become 'motivation problems.'"

In summary, effective teachers apparently motivate by letting
pupils know that they are capable of learning, by exuding
confidence in their own capacity to provide useful assistance to

pupils and by assigning tasks at which pupils can succeed, there-
by making the prophecy come true. Other psychological conditions
may be the teacher's acknowledgement to pupils of the difficulty
of a learning task (Duffy & Sherman, 1977; Green, Note 22) and the
matching of student and teacher styles (Brophy, Note 18).

Summary of opportunity-to-learn findings. The teacher effective-
ness research, particularly as it relates to basic-skills instruction,
indicates that teacher behaviors that create opportunity to learn
are crucial for producing growth in pupil achievement (and, to some
extent, attitudes). Properly understood, these findings can help
improve reading instruction.

Unfortunately, however, they are not always properly under-
stood. For instance, it is sometimes believed that the opportunity-
to-learn findings represent support for discrete teaching behaviors
in the tradition of competency-based instruction when, in fact,
the findings refute the concept of generic teaching behaviors in
favor of constellations or clusters of behavior (Brophy, 1979;
Good, Note 13). It is sometimes believed that these findings will
encourage the mandating of prescriptive algorithms which will
make the teacher mechanistic and non-humanistic when, in fact,
teaching researchers such as Gage (1978), Good (Note 13) and
Fenstermacher (1980) argue eloquently for teacher judgment in
implementing the findings. Some people believe that phonics

is emphasized to the detriment of comprehension when, in fact,

successful comprehension programs such as the Kamehameha Project

reflect opportunity to learn findings (Au, Note 23; Sloat, Note 24;

Thorp, Note 25). There is a belief that . . findings apply to all

reading instruction when, in fact, they apply only to basic

skill situations (Brophy, Note 18; Good, Note 13). Some people believe

that the behaviors associated with opportunity to learn are

universal truths when, in fact, effective teaching varies accord-

ing to a multiplicity of contextual factors (Brophy, Note 18; Good,

Note 13; Peterson, 1979). Finally, there is the belief that the

findings are generated exclusively by behaviorists when, in fact,

research on teaching reflects an interdisciplinary balance between

behaviorists, cognitive psychologists, anthropologists, sociologists,

educators, and others.

The message, I hope, is clear. Collaboration between reading

and teaching researchers requires accurate interpretation of what

the opportunity to learn findings do and do not imply.

Teaching as Technical Behavior

Researchers on teaching have long felt that teachers ought to

be reflective. They have pointed to the rebellion of teachers

involved with "teacher-proof" reading programs as evidence of what

happens when a teacher's rationality is stifled, and they have

assumed that teaching is guided by reasoned rather than conditioned

or reactive behavior. This belief, together with the emerging

interest in cognitive psychology and cognitive information processing,

has led many researchers on teaching to look beyond direct instruction,

management, and psychological conditions to determine the goals, intentions, judgments, decisions, and information processing that undergird the behavior associated with teacher effectiveness. In short, teacher effectiveness researchers have begun to examine the nature of teacher rationality on the assumption that their behavior must be guided by what they think.

Parallel studies in reading have hypothesized that theories and models of reading influence a teacher's instruction (Harste & Burke, 1977; Kamil & Pearson, 1979; Buike, Burke, & Duffy, Note 26), that clinical and remedial decision making in reading reflect a rational model (Vinsonhaler, Note 27), and that teachers can reflectively apply diagnostic-prescriptive techniques in teaching reading (Duffy, Sherman, & Roehler, 1977).

Such interest in the teacher's mental life has produced two major categories of research on teacher thinking. They focus on the teacher as a planner and on the teacher as a decision maker.

The teacher as a planner. Clark and Yinger (Note 28) have reviewed virtually all the planning research. They report that teachers do not think about planning in the way researchers have assumed. Rather than following the objective-based, linear model of planning promoted in most teacher education programs, teachers apparently initiate planning by selecting an activity that they then fit to the time available and to other constraints. Only then, somewhat as an afterthought, do they consider what specific skills or processes the students may learn by pursuing this activity. Other reviewers and researchers (Brophy, Note 21; Morine-Dershimer, Note 29; Joyce, Note 30) also indicate that plans are made activity-

focused and routine in order to expedite teacher monitoring functions and to insure ease of management. In short, the research on planning pictures teachers as technicians who manage activities rather than as professionals who reflectively select strategies and tactics to achieve particular goals.

The teacher as a decision maker. Like planning, the concept of the teacher as an interactive decision maker reflects the ideal of rational teacher behvavior. As described by Clark and Yinger (Note 28),

> Interactive decision making refers to decisions made during the act of teaching. The teacher is seen as constantly assessing the situation, processing information about the situation, making decisions about what to do next, guiding action on the basis of the decisions, and observing the effectiveness of the action on students.

While laboratory research appears to substantiate the concept of interactive decision making (Borko, Cone, Russo, & Shavelson, 1979), classroom observation studies indicate that teachers are not as reflective on the job as had been assumed. Instead, as noted by Joyce (Note 30), teachers tend to emphasize the maintenance of on-going activity flow in the classroom rather than interactive decision making. In reading particularly, the apparent lack of decision making during the interactive stage has led Buike (Note 31) and Duffy and McIntyre (Note 32) to characterize the teacher as a "technician" and as "activity-driven." Durkin's (1979) study of classroom comprehension instruction (or, rather, the lack thereof) further suggests the absence of substantive instructional decision making, as does the report by

Tierney and Pearson (Note 33) that teachers object to open-ended comprehension questions in the basal text.

Possible causes of technical behavior. These findings about teacher planning and decision making are difficult to accept because researchers want to believe that teachers are basing their actions on rational instructional models. However, they are not so surprising when examined from the standpoint of classroom realities generally and reading instruction in particular.

Consider classroom realities. The first reality is that failure to establish an on-going activity flow results in serious behavioral management difficulties. Consequently, teachers convert a complex and potentially explosive group of 30 children into a predictable and simplified routine that can be monitored with relative ease (Brophy, Note 21; Shavelson, Note 34). Jackson (1968) summarizes the situation best when he describes the teacher's concern as,

> making some kind of educated guess
> about what would be a beneficial activity
> for a student or group of students and
> then doing whatever is necessary to see
> that the participants remain involved in
> that activity. The teacher's goal, in
> other words, is student involvement rather
> than student learning. It is true, of
> course, that the teacher hopes that the
> environment will result in certain
> fundamental changes in the students.
> The learning is, in this sense, a by-
> product or a secondary goal rather than
> the thing about which the teacher is most
> directly concerned.

Second, as both Brophy (Note 21) and Shavelson (Note 34) suggest, technical teacher behavior makes sense in terms of cognitive information processing. Interrupting an established activity flow in a classroom to reflect on and consider an alternative (while simultaneously trying to keep 30 pupils involved) increases significantly the information-processing demands placed on the teacher. In effect, a "cognitive overload" occurs and the teacher must simply move on. Most who have taught school for any length of time admit that this, indeed, is the way it often is.

A third hypothesis, noted earlier, is that the demands of the workplace, whether viewed as the classroom, multiple role strains, or society at large, account for the paucity of observed teacher reflection during instruction. While a different kind of decision making may be occurring in contexts other than public lessons (Shulman, Note 9), the complexities of the workplace severely limit interactive decision making.

Finally, the fourth hypothesis reflecting classroom realities is seen in the work of Barnes, Putnam, and Wanous (Note 35). They have created a teacher education program based on the concept that prospective teachers must be effective classroom managers before they can be effective instructors. In effect, they are saying that classroom management must be automatic in order for teachers to make room in their information processing apparatus for interactive decision making. Hence, teachers who must consciously attend to the technical demands of management become technicians; if these tasks become automatic, the teacher is free to concentrate on instructional decision making.

The nature of reading instruction itself can help explain why so many teachers look like technicians.

First, in analyzing the research being conducted at the Institute for Research on Teaching on clinical reading diagnosis and the data that repeatedly indicate that practicing and certified diagnosticians are not even reliable with themselves, much less with one another, Brophy (Note 21) suggests that the fault lies with the primitive nature of our knowledge base in reading. In other words, reading teachers have difficulty being reflective because there is not enough reading knowledge to allow them to be specific and truly diagnostic. Hence, they must be technicians. As Brophy (Note 21) says,

> In educational diagnosis and remediation,
> it is as if we are treating all patients
> by telling them to get some rest, take
> aspirin and drink a lot of fluids no
> matter what their problem. . . Until
> we develop a knowledge-base to support
> more truly diagnostic and remedial
> procedures, I do not think that we can
> expect much from even "experts" let
> alone ordinary classroom teachers.

Second, reading teachers may behave like technicians because of the prominent role played by materials, particularly the basal textbook (Clark & Yinger, Note 28; Osborne & Shirey, Note 36). Teachers are encouraged and often mandated to use basals, but these materials themselves are designed for use by technicians. The teacher's guide, as recently noted by Durkin (Richey, Note 37), provides many more practice activities than instructional suggestions, and the texts, workbooks, and other materials are all designed to be used in a question-and-answer, recitation format. As my colleagues

and I have been discovering in our research on teacher conceptions

of reading (Buike, Burke, & Duffy, Note 26), the basal materials

rather than theoretical considerations, rational models, or

reflective procedures dominate teacher thinking because basals

aid in resolving management concerns while simultaneously being

professionally acceptable.

Third, teachers behave as technicians because researchers

inadvertently promote such behavior. It is not unusual, for instance,

for the teacher to be described as a mediator of materials (Gage,

1978); for instruction to be characterized as technology (Barr

& Dreban, 1977); for teachers to be seen as little more than

custodians of curriculum;[3] for methods texts and sessions at

professional reading conferences to emphasize activities, games, and

drills designed for recitation formats; for methods courses to

promote such patterned teacher monitoring behavior as SQ3R and the

Directed Reading Lesson; and for good comprehension instruction to

be equated with "asking the right questions," which, as Durkin (1979)

points out, is really just an assessment technique. Even prominent

reading professionals such as Barr and Durkin tend to equate

instruction with the essentially technical task of instructional

pacing (Barr, 1973-74) and use of teacher's guides (Richey, Note 37).

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[3]It sometimes sounds like reading educators are recommending that
once one or another aspect of the reading process gets into the cur-
riculum, the rest will take care of itself. Consider, for instance,
Coltheart's (1976) dismissal of teachers in favor of curriculum when
discussing early readers in a recent publication entitled "Reading
Research: Advances in Theory and Practice:"

> The fact is that reading teacher's practices are
> what they are. All readers, early or non-early,
> pass through a school curriculum, and if this
> curriculum is such that it eliminates the advan-
> tages that early readers initially had, that is
> that: early reading is simply beneficial.

Finally, reading teachers may become technicians in self-defense. Not only do teacher education programs supply prospective reading teachers with little other than technical "tricks of the trade," they often give the impression that reluctant readers can be transformed into fluent readers simply by caring about them, by letting them "learn to read by reading" or by letting reading acquisition happen naturally. Good (Note 13) addresses this issue when he suggests that teacher education programs may contribute to low teacher efficacy by giving prospective and in-service teachers unrealistic expectations about what to expect when teaching reading. As he says,

> Teachers need to understand that teaching
> is a very tough but feasible task.
> Teachers' expectations for simple
> solutions to problems can turn into
> anger, frustration and, ultimately,
> withdrawal in the face of classroom
> realities.

In short, teachers may be technicians because that's what they're taught to be. They are told that reading acquisition is a natural phenomenon requiring little teacher effort or guidance, and they are given instructional suggestions that limit their actions to monitoring and reacting rather than presenting, stimulating, and guiding. When teachers have been prepared in this way and are then faced with the realities of classroom life, what recourse do they have but to become technicians?

Summary of technical behavior. In sum, the above findings contradict some cherished beliefs about teacher's reflective behavior. Rather than being driven by goal-oriented and theoretically-consistent instructional models, teachers appear to be preoccupied with activities that maintain activity flow. Consequently, teachers look like technicians and managers rather than like reflective professionals.

There are, however, three points, that temper this conclusion.

The first, as noted above, is that teacher educators may well be contributing to the creation of such technical behavior and must be prepared to do more than simply condemn it.

Second, it must be noted that the generally unpalatable picture of the teacher as a technician is nevertheless real. These data illustrate the fact that the teacher is a normal person who, despite frailties and limited resources, must cope with that fluid, complex, demanding, and potentially volatile place called a classroom. While the findings may be alien in terms of a reading researcher's schema, they are no less valid for that.

Finally, Good (Note 13), Fenstermacher (1980), and McDonald (1977) suggest that the ultimate key to true teacher effectiveness may lie with teacher judgment in rationally applying suggested findings rather than in unquestioningly applying algorithms and prescriptions. While good technicians may be more effective than poor technicians, the ultimate in effective teaching will require more than technically competent teachers.

Summary of Teacher Effectiveness Findings

In some ways, it is overly simple to summarize the past decade of research on teaching in just two conclusions about opportunity to learn and teaching aa technical behavior. However, these conclusions capture the essence of the reality of classroom life, and it is this reality that is the major contribution of research on teaching. With these conclusions as a base, researchers can hopefully move to studies that not only describe what is currently considered effective teaching, but also what effective teaching can ultimately become.

Implications for the Reading Profession

The teacher effectiveness research places much of the reading profession squarely between assumptions about "what ought to be" and the reality of "what is." On the one hand, some people argue that reading acquisition ought to be a personalized interaction between child and text that develops with little artificial intervention from teachers, and that teachers should function in indirect and unstructured ways because they are reflective professionals. In contrast, the research on teaching suggests that effective teachers of reading (especially beginning reading) generate opportunity to learn by establishing efficient management, structured learning, and psychological conditions, and that they keep their sanity by deliberately minimizing the need for "in-flight" decisions.

The conflict between "what ought to be" and "what is" is a painful one. If left unresolved, it can weaken chances for collaborative work involving reading and teaching researchers. Since the goal of this paper is to build collaboration, the following implications are presented in terms of how research on teaching can help shape reading education efforts, influence reading research, and provide collaborative agendas for the future.

Teacher Education

The first implication of research on teaching is that communication with prospective and in-service teachers must include acknowledgement of the realities of classroom life. To

prepare reading teachers without giving adequate attention to

direct instruction, management, psychological conditions, and

the current limitations in the classroom teacher's information-

processing capacities results in a distorted picture of what the

world of the classroom is really like. Ultimately, a backlash

occurs; the schema of the reading educator conflicts so dramatically

with the practitioner's schema that the entire message about read-

ing is rejected. If the goal of educators is to have teachers apply

the emerging findings about the reading process, they must present

these findings within points of contact representing the ex-

periences teachers have had in the real world of classrooms.

Failure to do this risks the rejection by teachers of all the

potential benefits of reading research.

Second, the teacher effectiveness findings must be examined

not only for the clues they provide regarding contextually valid

vehicles in which messages about the nature of reading can be

embedded, but for their potential in helping teachers become

better reading instructors. In short, reading educators must

help teachers not only with the nature of what is taught (at Shul-

man's third-level) but with how it is best taught (the first and

second levels). This means that they must deal with the pedagogical

problems inherent in equitably distributing opportunity to learn

among 30 children and with how teachers are to find room in their

already over-crowded cognitive world for the information-processing

demands inherent in the instructional recommendations reading

educators ma.e.

Third, reading educators must highlight the limitations, as well
as the strengths, of their instructional findings. A major limitation
is that effective teaching in one context is not necessarily effective
teaching in another. Consequently, reading educators must help
teachers exercise judgment in applying teacher effectiveness
findings to appropriate contexts and should avoid promoting universal
theories and models of reading instruction that imply the use of
identical instruction in all contexts.

Finally, reading educators must recognize that the findings on
teaching present only a partial picture of instruction. The most
glaring example of this is the preoccupation with Carroll's concept
of "opportunity to learn" and the relatively minor emphasis on
"quality of instruction.' In effect, the weight of the quantita-
tive time-use data has caused researchers of teaching to equate
quality with maximized opportunity to learn. Virtually no

research has been conducted that examines effects of the qualitative
guidance or assistance teachers offer as a prelude to or as part
of the structured direct instruction activities, nor has anyone
examined the ways opportunity to learn might be modified as a result
of teacher guidance. I personally suspect that one reason why so many
teachers conduct mechanical recitation sessions is that they have no
concept of how to qualitatively assist pupils in their learning. They
only know how to keep them on task. As Good and Brophy (1978) state,

> Teachers sometimes act as if the
> students are supposed to learn on their
> own with no help from them. . . Such
> behavior represents a fundamental
> failure t appreciate the teacher's
> basic role. The teacher is in the
> classroom to instruct.

Instruction is more than creating opportunity to learn. Research on teaching, unfortunately, provides little specific assistance regarding this additional dimension of teaching.

Reading Research

Teacher effectiveness findings suggest four implications for reading research.

First, reading research that focuses on instruction should, at the minimum, demonstrate an awareness of classroom realities and control for crucial teaching variables. Conducting research on the teaching of inferencing without controlling engaged time is one example of how ignoring findings on teaching can taint research on reading, to compare teachers of reading without attempting to account for efficacy is another, and conducting reading research in laboratory contexts or with college students and suggesting how the findings should be applied in elementary classrooms is yet another. Researchers of reading, especially those studying comprehension, have an obligation to either control for the realities of instruction in the design of the study or to acknowledge their absence when reporting the data.

Second, reading researchers, like teacher effectiveness researchers, must begin looking more systematically at various contexts. The results of research on teaching speak clearly to

the point that what is true at one grade level with one ability

group in one socioeconomic setting is not necessarily true for

another. Sweeping generalizations cannot be made about teaching

generally, and they cannot be made for reading instruction in

particular. Consequently, conducting reading research in multiple

contexts is essential.

Third, reading researchers should consider making greater

use of qualitative research designs. To date, descriptive research

has been little used by reading researchers, particularly those

studying reading comprehension instruction. However, a program

of such research would go a long way in informing comprehension

researchers of the complexities of classroom instruction, the

limitations of teachers' information-processing capacities "under

fire," and the realities within which laboratory findings must

be applied.

Finally, reading researchers should consider strengthening

their research programs by adding practitioners to their research

teams. This does not mean the addition of former practitioners

who are currently graduate students training to become researchers.

Such people, of course, are expected to emulate researchers and,

as such, can hardly be expected to represent practitioners.

Instead, practitioners should be hired *as practitioners* and

should be charged with the responsibility of insuring relevance

and reality in research designs and in the conclusions drawn

from findings. This is not a pie-in-the-sky notion. Such

teacher collaborators are an integral part of the research

projects conducted at the Institute for Research on Teaching
and their impact on research quality has been significant.

Future Cooperative Ventures

Research on reading is a dynamic field, and so is research on
teaching. The nature of schooling dictates that the ultimate
agenda for both communities is a shared one--applying findings
in classrooms to improve instruction. This shared agenda could
be expedited by collaborative ventures. While the possibilities
for such cooperation are extensive, the following five examples
are illustrative.

One of the differences heretofore separating the two
research communities has been the respective object of focus.
Reading researchers have focused on the curriculum and the
learner; teaching researchers have focused on the teacher and
instruction. Recently, however, each research community has
become more interested in the other's object of focus as findings
have pointed more and more to the complex interaction of learner
variables, teacher variables and, in reading, text variables.
As Brophy (Note 18) points out, "the development and merging
of these interests should fuel a major trend in the 1980s."
Certainly, reading and teaching researchers should collaborate in
this trend.

Second, the affective goals of schooling will be a major
research thrust in the next few years. Little is currently known
about what constitutes effective teaching in this area. However,

reading researchers, with their interest in comprehension as a
personalized process and in affective responses to leisure reading,
have much to contribute to collaborative research in this area.

Third, teacher effectiveness research is always bound by
outcome measures. This is especially so in reading, as evidenced
by past controversies regarding what constitutes achievement (see
House, Glass, McLean, & Walker, 1978,for one example) and by current
debates regarding the validity of using standardized test measures in
teacher effectiveness research. While the nature of the context
will always exert some influence on the type of outcome measure
used in future studies, additional effort will nevertheless be
needed to identify appropriate outcome measures in reading,
particularly in terms of the affective and personalized dimensions
of language learning. This is another area that clearly calls
for collaboration among reading and teaching researchers.

A fourth potentially profitable area of collaboration
springs from the emerging findings on text processing and meta
comprehension. Both imply the use of hueristics to help learners
become more aware of and systematic about their language pro-
cessing. Researchers from the reading and teaching communities
could collaborate in this area to determine what role the teacher
should play in presenting such hueristics to children. It would
seem particularly important to insure that this not become yet
another example of recommending patterned, technical, monitoring
behavior to teachers.

Finally, the most important collaborative reading-teaching
effort involves moving beyond structured opportunity to learn

toward Carroll's concept of "quality of instruction." More
specifically, the reading and teaching communities should con-
ceptualize and test various guidance and assistance strategies
that teachers of reading comprehension can use to go beyond
the assessment tactics noted by Durkin (1979) and the recitation
patterns noted by Duffy and McIntyre (Note 32), and toward what
Barr and Dreeban (1977) describe as "presenting subject
matter clearly, visibly, audibly, and understandably"
and what Durkin (1979) defines as instruction. Although the
reading profession has traditionally given little attention to
this aspect of teaching, now is the time to do so.

The following five embryonic descriptions of instructional
guidance may serve as a starting point. They represent a
conceptual cycle. At the beginning point are those conceptions
of teaching that involve little guidance beyond mechanical devices
such as pacing and content covered (Barr, 1973-74). Here, the
teacher is little more than a reactive responder who coordinates
instruction by adjusting pace to learning rates of pupils. In
addition to the fact that pacing is probably more a function of
activity flow and management than of teaching (and, therefore,
emphasizes the teacher's role as a technician), such conceptions
of teaching offer little guidance to pupils. Providing little
additional guidance but reflecting a less technical role for the
teacher is the position espoused by Goodman (Note 38) and Smith
(1975) who conceive of the teacher as a facilitator who avoids
formal instruction and allows children to learn to read by

interacting with books and language in natural, unconstrained, and uncontrived ways. At the middle points of the cycle are two positions. Closest to the Goodman-Smith concept are Tierney and Pearson (Note 33) who emphasize the personalized nature of comprehension but also see the teacher as providing guidance in the manner of a "tour guide on a journey to the center of the mind." Representing more teacher direction and assistance is the position described by Duffy and Sherman (1977) and by Duffy and Roehler (Note 39) in which the teacher is proactive in presenting cues and gradually diminishing assistance to guide pupils toward desired comprehension learnings. Finally, there is the conception of Becker, Engleman, and Carnine (1979) in which the teacher exercises extensive control in directing pupil responses, even to the extent of requiring responses from pupils in unison. Hence, while this latter view may represent the ultimate in guidance, it also completes the cycle by coming back to the teacher as a technician who, in this case, often follows a prepared script when teaching.

While contextual influences suggest that no particular concept of teaching will be equally effective in all situations, it is intuitively obvious that teachers who provide assistance will create more success than those who simply structure "opportunity to learn" or who leave pupils to learn by natural means. Pursuit of such quality instruction is, in my view, the most important way in which the two research communities can collaborate in the future.

Conclusion

Regardless of their particular research backgrounds, the reading and teaching communities share a desire to create more effective schooling, particularly as it relates to language learning. Collaboration among the two research groups can help us reach this goal. Despite apparent disparities between reading educators' assumptions about classrooms and the findings from research on teaching, a schema-match based upon common points of contact is possible. Hopefully, this paper provides a beginning.

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