This paper traces the development of the seven-volume Florida Catalog of Performance Objectives for Reading and Writing, kindergarten through grade twelve, and describes the nature, purposes, and use of the finished product. The project was funded by the Florida Education Department, and the researchers built on earlier catalogs developed in reading and writing. A search of the literature pertinent to the fields of reading, written composition, and performance objectives was performed, and all existing communications performance objective catalogs were surveyed. After developing a domain chart treating the expressive skills of speaking and writing as almost mirror images of the receptive skills of listening and reading, the group employed graduate assistants and practicing teachers to list competencies for each area and to develop pre-objectives, performance objectives, and two assessment items for each skill. A major portion of the paper presents the values and limitations of the performance-objective approach and the anticipated use of the finished project within a humanistic curriculum. (Author/WR)
What Seems to Be the Most Effective Way of Disseminating Reading Research in a Meaningful and Useful Manner to Classroom Teachers?

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Some experts estimate that when a significant breakthrough occurs in a technological area, within three to four years practical applications of the new insight have emerged from all concerned industries. The so-called "turret top" automobile was the exclusive possession of one company for one year. The freeze-drying method of preparing instant coffee became industry-wide in a matter of months. Even in the 1880's the discovery that barbed wire could contain the most ferocious bulls was able to close the open range within a decade.

Not so when a breakthrough occurs in the social sciences—particularly in education. Educators almost replicate the story told by Charles Carpenter fires of the "murder" of George Washington by his physicians. Although William Harvey had discovered and described the circulation of the blood in 1628, fully one and a half centuries later, Washington's doctors bled him three times in one evening, hoping to cure a case of quinsy, and so weakened him that they practically assured his death. The analogy between medicine in Washington's time and education in ours is perhaps not so farfetched if the titles of several books commending on teaching are taken seriously: Save the Children, Our Children are Dying, and Death at an Early Age. This criticism of the failure to apply research in education extends to areas other than reading, of course, but it surely applies to reading as well.

A research study described by Arnold J. Moore and W. Don Carriker and in "The Futility of Educational Research in Curriculum Development" (Phi Delta Kappan, March 1974, page 497) suggests that "the problem, at least in part, is simply that practitioners may not be willing to accept and use research findings—no matter how they are packaged—because they resist research as a concept!"
These researchers reach the foregoing conclusion by identifying comparable groups of American Educational Research Association (AERA) members, representative Kansas TEA members, and outstanding educators selected by local Jaycees. When the groups were given a Scale of Attitude Toward Research, developed and validated by the researchers, the outstanding teachers and the AERA members were indistinguishable in their attitudes. But the Kansas TEA members—assumed to offer a population representative of all Kansas public school teachers—scored significantly lower.

It is indeed possible that teachers will reject "research findings—no matter how they are packaged—because they resist research as a concept!"

Harry Singer, however, in his article "Research That Should Have Made a Difference," (Elementary English, #47 (January, 1970), pages 27-34) has several additional explanations:

If we ask why the studies...have not yet had widespread impact upon teaching reading, we would give several major reasons. On this list would be inattention or even ideological resistance to research results (Moynihan, 1968), findings contrary to "conventional wisdom" (Chall, 1967), acceptability of only those research findings that are in accord with the prevailing maturational-environmental bias (Durkin, 1958), susceptibilities of educational decision makers to commercial propaganda, and variation in adequacy of dissemination of findings (Chall, 1967).

Singer then goes on to offer a key additional reason that teachers neglect research findings: "teachers do not have an alternate method." Research conclusions can be either positive or negative. They can be positive in suggesting something which should be done (for example, schools should attempt systematically to develop and assess both speed and comprehension) or negative in suggesting that something should not be done (for example, teachers should
not use round-robin, LOCK-even reading recitations.) But whether positive or negative, most research is not disseminated in a pattern which also lays out clear and definite alternative procedures for actually teaching children. It is no wonder, then, that much research is not read, that some is read and rejected, that some is read, attempted, and then abandoned. The ordinary practitioner may well resist research as a concept primarily because he reads it as basically negative: it attacks what he has been taught and what he has practiced. It tears down without offering the alternatives to rebuild. It asks him to create new procedures when the primary researcher has been unwilling or unable to do so.

Perhaps Carl Sandburg's "Prayers of Steel" offers researchers an excellent paradigm. Yes, let me be a crowbar to "lift and loosen old foundations" but also "Let me be the great nail holding a skyscraper through blue nights into white stars."

In a little pamphlet entitled, There's a New School Coming, the Florida Department of Education several years ago laid out very clearly the "renewal strategy" underlying Florida's long-range plan to improve education. It is built on three basic elements:

1. Identifying clear goals and objectives
2. Finding out through assessment and analysis how well the goals and objectives are being attained, and
3. Identifying additional ways of achieving the objectives (i.e., alternative educational practices) for reaching the specified goals.

The Florida Department of Education plans were not limited to reading; they included art, reading, music, mathematics, science, social studies, and such inter-disciplinary areas as learning skills, human relations, and employability skills. Enlisting the aid of the most knowledgeable available experts in each area, Florida has clearly aimed at including significant research in such a context that it will indeed be used by teachers.
The strategy is based upon a performance-objective base. Yes, the authors are indeed aware of the controversies surrounding performance-objectives and attending criterion-referenced assessment. It is not the intention of this paper, however, to defend performance objectives, but rather to explain an Effective Way of Disseminating Reading Research in a Meaningful and Useful Manner to Classroom Teachers. That way, simply stated, is to provide alternative instructional strategies rooted in research as a means of achieving clearly identified goals and objectives, however they are specified. Unfortunately, the Florida program is not yet to the point of developing alternative educational strategies, so this paper can only describe the method of stating the goals and objectives and preparing for assessment and analysis. The greater part, the more creative work, and the most effective applications lie ahead.

In 1972, a Broward County team and a Florida State University team worked respectively on catalogs of writing and reading objectives. In addition to publishing "Performance Objectives for Writing, A State of the Art Survey," and domain charts for each area, they prepared several volumes of objectives and assessment items. It became apparent, however, that because of the limited amount of time in which the teams worked, the catalogs were incomplete. Moreover, since reading and writing are so inter-related and instruction in a writing skill may very well promote a reading skill and vice versa, additional highlighting of the interrelationships between reading and writing seemed desirable. In August 1972 the State advertised the project to expand and integrate the catalogs, and in December of 1972 the team at the University of South Florida headed by William West and Elaine Tivnan began its work. One year later, on December 7, 1973—a day that will live in infamy, someone has said—the team mailed to the State Department seven volumes totaling 2,823 pages. Included in these pages are:

1. An Introduction, User's Guide, and Table of Contents
2. A Domain Chart with Reading Skills on the left-hand side and parallel writing skills when appropriate in mirror image on the right-hand side.
3. Three volumes of Reading objectives and three volumes of Writing objectives
In addition to these volumes, the staff prepared perhaps fifty additional napes of paradigms for later development. One project was a sample bibliography of teaching materials tied to specific objectives and the other was a specification of two alternative instructional strategies for several selected objectives. These are to provide suggestions to contractees when later phases of the educational renewal strategy are undertaken.

Page 000 shows the way the Domain Charts are organized and coded for the computer. Reading, on the left, is the mirror-image, for the most part, of Writing, on the right. Each area of both reading and writing is analyzed carefully, logically, into sub-areas, and sub-sub-areas and finally the competency under which each performance objective is placed. Though the computer is an idiot, it handles very well such strict, logical, outline divisions, and the number code at each step provides a key to where each item fits into the entire pattern. The following chart shows the major divisions of the first page of the domain chart:

Reading

Communications Readingness (both areas)
Word Identification Skills...............................Word Formation and Vocabulary
Word Meaning Skills........................................

...............................Sentence-Level Syntactic (Grammatical) Skills

Comprehension Skills ..................................Rhetorical Skills
Reference and Study Skills Functional Writing Skills

Recreational Reading Skills..............................Creative Writing Skills

On subsequent pages, each of these areas is broken down into subcomponents, which in turn are broken into sub-sub-components, and then specific objectives are assigned under each competency.

Page 000 is a representative page from one of the catalogs. It shows how the objectives and the assessment items are arranged, and it reveals the extent of the computer coding. At the top left of each page is a number—always a 5—
which identifies this page as belonging to the English Language Arts in the Florida computer bank. The next number 1 identifies this item as being a Language Skill. The next number 1 reveals that this item is pertinent to Reading. The final number on the upper left-hand-corner line places this item in the fourth main division of Reading—that is, Comprehension Skills. Subsequent subdivisions on the Domain Chart—Literal Skills and Details—are both numbered and named on the following lines. Other numbers on the page, is identified on page 000 supply other coded information such as grade level, type of learning, and so on. Then comes the Pre-Objective.

The Pre-objective is a statement in measurable terms of an observable behavior to be exhibited by the learner. It is, in short, what he will be able to do in order to demonstrate that he has learned something. It includes the situation the learner will face, the action he will perform, the object on which he will operate. His activity will be measurable, or observable in some way.

Beneath the Pre-objective is the Performance Objective. It is a more precise statement of the pre-objective. It includes situation, action, object, limits, and measurability in more nearly precise terms, and it adds communicability and criterion for success, as well.

Under the Performance Objectives are two Exercises to assess whether or not the skill specified in the performance objective has been learned. If the exercises are properly developed, they measure exactly what the performance objective specified, the two are equivalent in difficulty, and they are at the appropriate age-ability-interest level of students who will use them. Not shown on this sample, but appended to each assessment item is a sample answer sheet with either correct answers or, in the case of writing, appropriate responses.
Florida has emphasized repeatedly that the reason for developing Performance Objective catalogs is primarily for the purpose of influencing curriculum to "renew education." Nonetheless, the first page of the catalog emphasizes that the objectives are "neither a curriculum sequence nor a set of recommended instructional procedures." The objectives can be invaluable for 1) choosing objectives on which to build a curriculum, 2) choosing clusters of objectives around which to plan instructional units, 3) choosing objectives to assess learning, and 4) expanding teacher understanding of desirable goals. But the catalog, honestly, will only really become functional when the third phase of the strategy for renewal becomes operational and a future project develops alternative instructional procedures for achieving each objective. Hopefully, some of the alternative procedures will motivate the unmotivated, involve the uninvolved, and reach the unreachable who presently--often through no fault of their own--are not educable by currently common procedures.

According to the pamphlet There's a New School Coming, the process of statewide assessment should occur only after the specification of goals in the catalogs. Actually, assessment has been going on for three years, even without the catalogs, and few people would insist that valid tests could only be written upon the completion of the catalogs. Now, however, the continuing annual assessment will be based on selected objectives from the catalogs--but, again, the major impact of the catalogs--and their use in bringing educational research effectively into practitioners' hands must wait for the development of the alternative instructional procedures.

What about the method used in developing the catalogs to this point? And what recommendations would the University of South Florida team make to people anticipating undertaking similar projects.
The Preparation of the Florida catalog involved the following steps:

1. Preparation of a "State of the Art Survey." This was done initially by the Broward County group and involved a search of the literature so that staff members and State Department people were familiar with most of the literature pro and con on performance objectives, their development, their values and limitations, and existing catalogs. The University of South Florida group made extensive use of the Survey and of the bibliography appended to it. In addition, the staff updated the bibliography and made extensive use of existing projects.

2. Preparation of the Domain Charts. Since the charts were due within a month of the beginning of the project (i.e., February 1973), West and Tivnan used the existing charts, sought help from the University of South Florida Reading-Education staff, picked the brains of such consultants as Helen Robinson, John Simmons, A.J. Stauffer, and examined domain charts or taxonomic outlines of other projects. They then built a tentative chart and subjected it to the scrutiny of language arts coordinators from five Florida counties and teachers of English from five public and parochial school teachers from three Florida counties.

3. The next major step should have been the designing of the physical arrangement of the actual catalog pages. This format is described on pages 000-000. Unfortunately, the staff plunged immediately into the fourth step and lost considerable time as a result of writing material that had to be revised or discarded.

4. The most time-consuming step was the actual writing of the performance objectives. Following is the actual procedure followed. It will be followed by recommendations for a better procedure. West and Tivnan actually were assigned one-third and two-thirds time respectively to the project. They worked with three graduate assistants who wrote objectives for twenty hours each week. Then experienced teachers spent
five hours one day each week in evaluating/rewriting, revising, and polishing the materials produced. When the staff fell behind schedule, they shifted to the following system, which should have been arranged t
at the outset:

a. The staff should have determined the physical format and verbal design of the objectives and written a number of specific examples.
b. The staff should have divided up the final "competencies" on the Domain Chart and each person should have listed in phrasal form a rough interpretation of as many objectives as he could think of for each of his assigned competencies.

Under the competency for writing poetry, for example, phrasally expressed objectives would have taken such forms as these:

1) Syllabicates
2) Distinguishes between accented and unaccented syllables
3) Marks syllables in phrases as accented or unaccented
4) Matches phrases having the same rhythm
5) Gives orally a phrase with the same rhythm as a given phrase, and so on.

c. When phrasal objectives for every competency have been listed, the staff should again seek the aid of previously published materials, consultants, language arts supervisors, and experienced teachers. These would modify, supplement, and delete the objectives listed.
d. Rather than having directors, graduate assistants, and experienced teachers create full objectives from scratch without guides to whole areas, the staff would offer the phrasal objectives to the writers. The writers would then develop each phrase into full-blown pre-objectives and performance objectives.
e. Staff, graduate assistants, and teachers should not write objectives at the tag ends of teaching days or on Saturdays. Instead, using the phrasal objectives as guides, they should work full-time during three summer months—at full pay—to write the final objectives.

5. The final objectives were carefully edited both by the directors and by the Technical Consultants furnished by the State Department of Education Research and Development section. Then they were typed in final form by a busy and long-suffering staff of typists.

The University of South Florida project staff is proud of the Florida Performance Objective Catalogs in Reading and Writing. The staff knows that their work equals or exceeds in quality anything else available. They hold, however, the same reservations regarding Performance Objectives that have been expressed so well in many National Council of Teachers of English publications. They are well aware of the dangers inherent in accountability and the futility of imposing sequence and structure on disciplines in which, there are not, as Marie Dickenson says about Writing, "...criteria...for the discernment of discrete components in complex behaviors...nor are there criteria by which to establish a simple-to-complex learning sequence for a behavior in which many components function simultaneously in harmony with the thinking processes of the...[individual]"


Recognizing these problems and emphasizing that a Performance Objective catalog is valuable primarily for teacher education and re-education and as a basis for developing alternative teaching strategies, the staff suggests such a project—a kind of comprehensive analysis of desirable objectives—as the basis for then developing teaching strategies which will truly bring research into active use in the classroom.
Explanation of the Numerical Codes

Informational Code
Grade-Level Introduction Code
Alternative Grade-Level Introduction Code
Type of Learning Category
Goals for Education in Florida Code

(Florida Elementary and Secondary Standards, 1971)

X-3.040

5.1.1.3.2.03.02 PRE-OBJECTIVE : Given word pairs, some of which are composed of synonyms, the learner will identify the word pairs that are composed of synonyms.

P5.1.1.3.2.03.02 PERFORMANCE OBJECTIVE : Given six word pairs, four of which are composed of synonyms, the learner will mark the word pairs that are composed of synonyms.

EXERCISE 2

DIRECTIONS: (Teacher may read) Read the follow-

DIRECTIONS: (Teacher may read) Read the Follow-
5.1.1.4 READING COMPREHENSION
5.1.1.4.1 LITERAL SKILLS
5.1.1.4.1.04 DETAILS
X5.1.1.4.1.04.24 PRE-OBJECTIVE: Given a reading selection containing specific information which tells who, what, when, where, why and how, the learner will identify who, what, when, where, why and how.

P5.1.1.4.1.04.24 PERFORMANCE OBJECTIVE: Given a 75 - 100 word reading selection containing specific information which tells who, what, when, where, why and how followed by the terms who, what, when, where, why and how, the learner will write the correct answer beside each term.

C5.1.1.4.1.04.24 EXERCISE 1

DIRECTIONS: Read the following paragraph. Fill in the blanks below with the correct term for who, what, when, where, why or how.

The first thing John Penn, an early pioneer, did when he reached his new home in the wilderness was to clear a spot of land big enough for a cabin and garden patch. This was not a simple task in forests where trees stretched as far as the eye could see. Trees less than a foot and a half around were cut down. The larger ones were girdled by deep ax cuts or burned about the roots. In time these trees fell and the land was cleared.

EXERCISE 2

DIRECTIONS: Read the following paragraph. Fill in the blanks below with the correct term for who, what, when, where, why or how.

Because the pioneer had no sugar, in the spring he located wild honey trees by following a bee he had caught and dusted with flour. He then marked the tree with his ax. Such a mark was always respected by other pioneers. The frontiersman would then cut down the tree after smoking the bees out. He might be badly stung, but he would get several gallons of honey for his trouble.
HOW THE DOMAIN CHARTS WORK: 1. Reading and Written Communication form Mirror Images
2. Each sub-division adds an additional Code Number