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ABSTRACT

This collection of articles deals with collaboration in teacher education. The first paper, "A Conceptual Basis for Collaboration," by Earl D. Clark, synthesizes the concepts and components of collaboration and prescribes the relationships needed between all involved if quality programs are to prevail. The second paper, "Parity and Educational Problem Solving: A Progress Report," by Suzanne M. Kinzer and William H. Drummond, outlines objectives and designs for the Florida Collaborative Model Project. This program attempted to achieve equal parity in collaborative educational policy-making between the following voices: (a) public school administration; (b) professional associations--classroom teachers; (c) university faculty; (d) students in teacher education; and (e) community or citizenry. The third paper, "Project Follow Through: Interdepartmental Collaboration," by Alex Molnar et al., describes the interrelationship between students, staff members of field centers, and university faculty as evidenced at a program at the University of Wisconsin-Milwaukee. The fourth paper, "Collaboration in a CBTE Program," by Rita C. Richey, Fred S. Cook, and Robert A. Roth, presents Michigan's approach to initiating a competency-based teacher education (CBTE) program with emphasis on collaboration. The articles, while distinct in their approach to collaboration, are similar in perspective. (Author/JS)

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EMERGING CONCEPTS FOR COLLABORATION

Selected Papers by

Earl D. Clark
Suzanne M. Kinzer and William H. Drummond
Alex Molnar, Lawrence Mobing, Ronald Podeschi, Diane Pollard,
Judy Kirkhorn, and Vivian Joyner
Rita C. Richey, Fred S. Cook and Robert A. Roth

Edited by Richard James and Ray Brown

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Technical editing, Jyllinda C. Hagler, ATE Professional Associate for Communications/Publications

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Preface

Labor and plan together; work jointly with others in an intellectual endeavor; cooperation from all parties involved in pursuit of a common educational goal—these statements all add up to collaboration, and focus on these characteristics should be intensified. However, there have been charges and countercharges by Colleges of Education, public school officials and classroom teachers accusing each of being excluded in the decision-making processes of promoting the activities of pre and in-service teachers. Each refuses to relent any part of their domain for fear of domination by the other, and students are caught in the middle, confused and frustrated. If this were the case in the past, long are the days!

Today, Colleges of Education in conjunction with State Departments of Education, administrators and cooperating teachers, and members of the community interested in the promotion of quality educational programs are coming together in an effort to design meaningful programs that will enhance the teachers' awareness and knowledge of classroom teaching.

Such is the case with the following articles. All are concerned with collaboration, not for the sake of being heard, but for the benefit of the students and teachers. Earl D. Clark begins by synthesizing the concepts and components of collaboration, and prescribes the relationships needed between all involved if quality programs are to prevail.

In the next three papers, specific programs of collaboration are presented. Suzanne Kinzer and William H. Drummond report on the University of Florida Collaborative Model Project and how the "Five Voices" contribute to successful collaboration. Next, Molnar, et al., describe the interrelationship between students, staff members of field centers and university faculty. And then, Rita Richey, Fred Cook and Robert Roth present Michigan's approach to initiating a CBTE program with emphasis on collaboration.

The foregoing articles, while distinct in their approach to collaboration, are similar in perspectives. Each is concerned with affording quality programs to students through cooperative efforts by all participants.

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A CONCEPTUAL BASIS FOR COLLABORATION

This paper is not so much an exhortation on why collaboration between schools and colleges is necessary, as it is on the basis for such collaboration. We in teacher education cannot just decide that collaboration is good. We must identify the basis for such collaboration. This paper will explore selected concepts certainly not in a definitive way, but at a depth as to stimulate further discussion. To establish a broader basis for what is essential to the growth of teacher education is our goal, this must be done on a firm foundation of a network of collaborative concepts.

I will start this discussion on a personal observation. It's hoped that this reflection will set the context for what is to follow: a reasoned statement on the crucial concepts needed for a more mature look at the basis for collaboration between institutions that set the conditions in field experiences for prospective teachers and institutions that help prospective teachers learn conceptual frameworks and professional knowledge as the basis for performance in field experiences.

My introduction to teacher education began in the early 1950's. This introduction continues to this day because I have not seen a great deal of progress beyond the introductory stage. From personal observation and experience one startling state of affairs became quite obvious to me. This observation is further reinforced by reading historical statements. Relations between field experience institutions and Colleges of Education seems to be one of who can gain the upper hand over the other; who can exercise control over the other. The literature seems to present a sense of cycle, a sense of one domain of teacher education waiting its turn to be "in charge for the era." The great need for field experience stations has had a tendency to swing the power to clobber, not collaborate, toward the schools.

Colleges were in a bind to place great numbers of prospective teachers in field experiences. So school personnel wanted to dictate specifications. In most cases these limitations and expansions were reasonable and added to field experiences in terms of quality, inasmuch as colleges were pushing for numbers from necessity. The cycle may be swinging back toward the colleges. Again the numbers (or lack of them) of prospective teachers and the essential need for field experiences is the key function of these cycles.

The numbers challenge to teacher educators has been met. A challenge for more quality is now apparent. In America's attempts to develop a universal system of education one simple practical fact was apparent. Teachers and great numbers of teachers were needed to staff this great educational experiment. In fact, teachers literally flowed out of teacher training institutions and they came through field experience situations in varying ways. There is some evidence that the numbers of prospective teachers will diminish. So the cycle of power has the possibility of swinging back toward colleges. But it will not swing back as far as in the past. Administrators and teachers in the schools have been well trained and know their importance in teacher education. They have a part to play and are willing and able to contribute. This is ideally the time to structure a firm foundation for collaboration between schools and colleges.

Some Basic Concepts

Transaction

True collaboration, collaboration that is a healthy, growing, productive affair, is a transactional relationship. A transactional relation consists of two or more parties who contribute as equally as possible to generate a totality. An interactive relationship tends to emphasize the concentration of power in one sector at any one point in time. Interactive relationships are obtained when both parties do not understand their parts in contributing equally to a situation. There might be activity on the part of both parties but there is usually a dominance of one; one more active, one more passive. When both are active in contributing, the whole is, indeed, greater than the sum of the parts. When this happens it is a transactional system; it is a system of collaboration. At this time relationships between colleges and field experience schools can be characterized more interactive than transactional. (Interactive is used in the literature and of course it sounds good, but the referent for the word is not the type of relationship we ought to be working toward).[1]

Perhaps there are many reasons for this lack of growth in both types of institutions, but basically I suggest that it returns to not truly understanding the nature of the problem of training a professional and especially a teacher in charge of the complexity of a classroom instructional situation. What I mean by the phrase "not understand" is quite simply that teacher educators do not seem to get down to the bare essentials of just what they are trying to do and develop their discipline around some essential principles and concepts.

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[1]Dewey, John and Arthur Bentley *KNOWING and the KNOWN* Boston: Beacon Press, 1949.

Probably one of the most essential concepts that influence the need for collaboration was outlined by Ryle[2] in 1950. Actually Ryle was with a very old philosophical problem. Primarily, he was exploring the clarification of the mind-body duality problem and how our beliefs relative to the mind-body duality influence our behaviors. In attempting a clarification, Ryle by necessity became involved in epistemology (the study of what is knowing and knowledge). You may be thinking that this seems a far reach from teacher education, but the categories of knowledge he postulates seem to be the very heart of the education of teachers and the foundation for the essential nature of the dependent relationships between two separate but related domains of knowledge; "knowing that" knowledge and "knowing how" knowledge. Surely it is not only knowledge that differentiates a professional, but also types of knowledge and their relationships.

Essentially Ryle points out that there are two basic types of knowledge and two different ways we add to our intellects in these two domains. Ryle's discussion of this epistemological problem of knowledge is not unique but it is rather clear. Dewey[3] dealt with the two major domains of intellect in *Art as Experience* and more contemporary scholars have attempted to clarify and show the significance of knowledge and symbols that are all around us in our everyday lay and professional lives.[4]

"Knowing That" Knowledge

"Knowing that" knowledge is symbolized by language and seems most familiar, and yet this knowledge may not be the most common. It is knowledge that can be learned by the use of language. This type of information represents conceptual knowledge, intellect that can be put into propositional form. These are the intellectual concepts encoded by prospective teachers and represented in either oral or written linguistic form. This cognitive or intellectual or "knowing that" knowledge is the basis or foundation for decision-making in the second domain of knowledge. In other words "knowing that" knowledge is the knowledge of our professional life space on which we base our acts, acts that are purposeful in terms of pedagogical ends-in-view.

"Knowing that" knowledge is encoded in our intellects by way of a pattern of meaning called a concept. A concept is a unit or category of awareness that is significant to us. It is significant to us because of its potential to initiate and guide acts. The important fact for teacher education is that this knowledge can be highly descriptive or it can be at a higher level of abstraction and can be conceptual. If it is conceptual it is more of an interpretive type. If such knowledge is at a very low level of abstraction, at an almost

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[2]Ryle, Gilbert *The Concept of Mind* New York Barnes and Noble, 1949

[3]Dewey, John. *Art as Experience* New York Capricorn Books, 1958

[4]Morris, Charles *Signification and Significance* Cambridge M.I.T. Press, 1964.

one-to-one correspondence with what to perform, then it cannot be categorized as professional. Broudy[5] has pointed out that abstract knowledge by its nature must be translated by the imagination of the practitioner into performance acts. This is the freedom and responsibility of the professional.

"Knowing How" Knowledge

In a general way, this was the point that Ryle tried to make. There is no "ghost in the machine" who directs our movements in a one-to-one correspondence with our knowledge. Our acts are a separate part of the intellect that must be learned as a separate component of knowledge different but based on our intellectual knowledge. "Knowing how" knowledge can not be put into language. It is not an automatic result of "knowing that." We often overlook that we, indeed, "learn to do" something; that we learn to teach as an activity. "Knowing how" knowledge, it must be understood, is a type of knowledge that is encoded in the nervous system; it is stored and it is retrieved as a separate manifestation of our total intellects. It is nonlingual knowledge often called non-verbal.[6] Discussions about such knowledge as pointed out earlier has been in the literature for years but we have neglected to apply it to teacher education.

Such non-lingual knowledge is generally thought to be basically at three levels of complexity. We all realize the body's ability to encode at the sense level and to retain and remember the experience. We "know" what smooth is like but we cannot tell somebody what the feeling of smoothness is, only that it is, of course, not rough. This tactile sense is one of five ways we encode knowledge of the world which we cannot communicate in language. The others are the senses of taste, hearing, sight, and smell. Notice that we experience the smell of a burning tire but we cannot communicate what is the smell.

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[5]Broudy, Harry S "The Role of the Foundational Studies in the Preparation of Teachers." *Improving Teacher Education in the United States.* (Edited by Stanley Elam) Bloomington: Phi Delta Kappa, 1967

[6]The distinction referred to here between non-lingual and non-verbal represents the need for more preciseness on the part of teacher educators in their use of terminology There are qualities such as tone, pitch, juncture to verbalizations in language which we "know" and use and which must be accounted for as knowledge that cannot be communicated with language but certainly is verbal. Such difficulties with terminology has caused Joseph E. Hill to use the terminology "qualitative symbolic" for manifestations of non-lingual knowledge after the writings of John Dewey and others For lingual knowledge Hill has used "theoretical symbolic" as a category including written and oral language and mathematical symbolism. The Institute for Educational Sciences, directed by Dr. Hill has as one of its thrusts the learning modes of people Certain people have a qualitative dominance and others have a theoretical dominance. Such evidence can be used for diagnosis and prescription relative to certain types of learning objectives. In other words, what we seek to learn is dictated by two things, the nature of the task to be learned and the way we personally learn best. In training a teacher both the theoretical and qualitative modes of conceptualization are important and must be accounted for accordingly in the teacher education program.

The second level of complexity is the psychomotor level or the complexity of performance, putting discrete movements together in a complexity of activity. Learning to ride a bicycle, learning the social interactive skills needed at a cocktail party, and learning to teach are all skills at the psychomotor level of complexity. Such skills can only be learned by having actual experience with the state of affairs being encoded.

It is impossible to encode the skills of working with 30 students, with the matrix of relationships, in a college classroom. One must experience the atmosphere, the movements, when to move, and feelings as an actual participant. These feelings and the entire spectrum of emotions are the highest level of non-lingual knowledge. Thus we can see that non-lingual knowledge, at all three levels (sense, psychomotor, and emotions) are an integral part of learning to maintain a classroom instructional situation. The sense level of "knowing how" knowledge is more likely less significant to the actual practicing to become a teacher but as professional knowledge which can be used to design learning systems for children it is indispensable.[7]

Professionals by their very nature must deal with both domains of knowledge. They must be competent in the intellectual or theoretical knowledge of their field: an understanding of the principles, problems, processes and property of the discipline is part of the lingual knowledge of that discipline.

This body of knowledge can be generally called competency as found in the term competency-performance education when competency represents the knowledge on which acts are based. The performance is an outgrowth of the cognitive knowledge.

"Outgrowth" is just the point that Ryle wanted to make. People can and do interpret theoretical knowledge in a number of different ways. A pattern of teaching acts is a creative process, it is unique to the individual prospective teacher and must be worked out or learned in the actual process of trying in a classroom with children and a cooperating teacher who is trained and knowledgeable in working with teachers specifically in this unique domain.

Summary to this Point

In the above presentation, I have attempted to outline a conceptual framework wherein there are two different types of knowledge to be learned by teachers, the conceptual knowledge that is general in nature and that which must be translated into performance. The performance itself is a type of knowledge, an awareness that must be learned as a separate increment of

[7]For some background reading see B. M. Grant and D.G. Hennings *The Teacher Moves. An Analysis of Non-Verbal Activity* New York: Teachers College Press, 1971; "The Challenge of Nonverbal Awareness," theme of *Theory into Practice* 10:4.

intellect. The theoretical and the qualitative types (see footnote 6) are characterized as "knowing that" and "knowing how" modes of intellect, often labeled as theory and practice. A problem that has long plagued teacher education has been the inability (for several reasons) of teacher educators to communicate the nature and importance of each domain of training. There have been, for the most part, constant attempts to separate and isolate the two domains from each other (witness the lack of collaboration). The point I have tried to make is that both are important in the education of teachers. The conceptual or theoretical without the knowledge of translating it into performance is sterile; knowledge without consequences. Performance without intellectual or theoretical context amounts to mindless modeling of someone else's skills. We must understand that one without the other is futility, but together they are a synthesized professional teacher.

Teacher Education and Teaching Education

We look at the education of a teacher as basically a four-year program (hardly enough time to do what we ought to do). Teachers, as a professional group, are unique in that they teach the culture. They use directly, in their work, the disciplines of knowledge studied primarily in the first years of college. This we will call the pre-professional phase of teacher education.

The professional phases of teacher education begin when prospective teachers enter the College of Education and start the study of instructional theory; concepts of how to pedagogically reorganize the disciplines of knowledge into learning systems for a specified developmental level. A teacher's expertise is in his ability to plan and execute a system of learning. If curriculum is to be defined as a composite of student acts, learning content, ends-in-view, and the relationships between the three, then teachers must be trained to plan and put into practice such a curriculum.

The professional phases are conceptualization of the content of classroom instructional situations ("knowing that" knowledge) and the second phase is teaching education.

Teaching Education

Teaching education is "knowing how" knowledge. As pointed out earlier, it can only be learned by actually experiencing the classroom. Prospective teachers must, however, be in classrooms from "day one" of this professional phase of their training. They must begin to encode the knowledge of "how to" from the very beginning. In the field experience, the prospective teacher from the beginning must be guided by a teacher who understands that they learn *about* teaching but do not learn how to teach in their curriculum methods courses in college classrooms. This is a common misconception of teachers in field experience situations. It is rather strange that

people who go through basically the same manner of training forget that they did not learn the skills of maintaining a classroom instructional situation in a college classroom. Such field experience trainers ought to be knowledgeable in working with prospective teachers in this context of learning the "knowing how" knowledge of teaching. Also they should be aware that such knowledge, if it is to be closer to the professional spectrum which we desire in the education of teachers, must be grounded in the theoretical knowledge of the college course of study. This calls for collaboration. The college instructor and the field experience instructor ought to get together on what they each think is important in their respective knowledge areas and coordinate. This ought to be a continuing dialogue of the coordination of theory and practice, of the theoretical and the qualitative knowledge of a professional. Here is the key to competent beginning teachers—a collaborative synthesis of the two domains.

There are possibly two other crucial concepts that need to be explored in developing collaborative efforts. Both parties need to talk from a common framework, and the field experiences must start at a low level of complexity and be guided to a level of complexity needed by an independent practicing teacher planning and maintaining a classroom instructional situation. The concept of levels of complexity will first be explored as an organizational structure needed for collaboration and secondly the need for a model for communication model of categories of the classroom will be presented as a framework for dialogue among the three parties involved—the prospective teacher, the field experience instructor, and the college instructor. This is the new team in teacher education.

The Levels of Complexity Concept

From Comenius to Conant to competency, teacher education, on the whole, has been reorganized and reorganized and reorganized almost to death. But why do the great schemes at reorganizing the education of teachers seem to fade away? And why does there seem to be only a little cumulative effect of these great schemes? Why do teacher educators continuously submit themselves to grandiose "studies" that suggest some new reorganization?

It seems that there is one simple reason for the continuing reorganization. There is so little attempt at synthesis of basic concepts in teacher education. Whether it is cause or effect, I can't say at this time, but everybody wants to do their own thing. This may be what encourages constant reorganization. There has been little synthesis in pedagogical theory to guide the education of teachers and to guide organizational schemes. Without connections that build on each other, isolated concepts slowly die. Concepts connected together build on each other to gain strength. Without the cumulative effect, another panacea is always better than the most recent one that died, or

anybody's bandwagon is better than a dying band. In discussing general instructional theory, Hosford[8] in clear terms says:

> . . . We have no theory of instruction—no theoretical base from which to operate the one process instruction man has always used . . . This seems a ludicrous position . . . almost inconceivable—yet here we are.

The bandwagon phenomena in teacher education can be explained by referring to a lack of basic conceptual frameworks based on research.[9] Reorganization of and research on teacher education ought to result in some cumulative effect for teacher educators. This can only be done with an emphasis on synthesis; developing frameworks for collaborative efforts.

The concept discussed in this section comes from the fields of systems theory, linguistics or the field of psycholingui[illegible] [illegible]ncept is the concept of complexity.[10] We are specifically [illegible] the developing of hierarchies of complexity in structuring fie[illegible]riences for prospective teachers. But in developing those hierarchies of complexity we need to concern ourselves with the ability to control the ascending complexity by using abstractions or generalizations. In other words, the practical must be tied to the theoretical.

In learning how to plan, organize and maintain the complexities of an instructional situation, a prospective teacher must be allowed to add aspects of the complexity in small steps. The classroom instructional situation (CIS) can be looked at as a system and the system cannot be put all together in one type of experience.

Teacher Aides (TA) (Level 1)

Conceptualizing of the CIS is to start from the very beginning of teaching education. The prospective teacher begins studying the CIS as a teacher aide (TA). The complexity of teacher aiding would be low because the emphasis would be, in fact, aiding the teacher to carry out the instructional program. The TA would be concerned with learning the importance of the environmental influences of the classroom. There would be chairs and tables to help control, helping students to organize and execute bulletin boards, or the TA would organize and execute boards related to an instructional theme. There would be duplication of materials and use of media for teachers. But teach-

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[8]Hosford, Phillip L. *An Instructional Theory-A Beginning*. Englewood Cliffs. Prentice-Hall, Inc., 1973

[9]Such research does not have to come directly from teacher education insomuch as it is an applied science as in all education See Paivio, Allan *Imagery and Verbal Processes* New York. Holt, Rinehart and Winston. Dale, Edgar *AV Methods in Teaching* New York Dyden Press, 1969, see Chapter Four, "The Cone of Experience," pp 107-134.

[10]There are a number of sources one could read from different disciplines. Rapport, Anatal "Modern Systems Theory-An Outlook for Coping With Change" XV; Simon, Herbert A "The Architecture of Complexity," X. *General Systems*, Yearbooks of the Society for General Systems research, Bruner, Jerome S *The Process of Education* Cambridge Harvard University Press, 1960. Dewey, John *Experience and Education* Collier Books: New York, 1963

ing is working with students and that is what prospective teachers must find out about. Therefore teacher aides (TA) could be working with single students in a tutorial situation. Teachers would diagnose and prescribe, and teacher aides would carry out such an instructional system. They would have experiences with remedial concerns as well as experiences with gifted children. Such TA experience could be related to introductory course work.

Teaching Assistants (TAT) (Level 2)

The next level of complexity for prospective teachers would have tasks related to small groups of students with learning disabilities and students who are gifted who need extra attention. This level would need much collaboration between school and college where the prospective teacher would be more of an assistant (TAT). The TAT would become more knowledgeable about curriculum. This level of complexity would be coordinated with curriculum methods courses. The TAT would, with the guidance of the teacher and college instructor, develop instructional units (modules with instructional materials) for small groups or individuals. There would be an emphasis on developing learning aids to help students meet specific curriculum objectives. Students would take a block of methods courses dealing with pedagogical concepts, and then translate them into units and materials based on a specific need in the school. The tasks and materials and curriculum units would be developed as an integral part of methods course work at the university. Part of the experience would be a shared feedback among teaching assistants at the college as to how and why materials and modules work.

Such development of materials and modules would require that the depository concept of a materials center would change into a laboratory and development emphasis where students would construct their own materials and modules after becoming familiar with a great variety of commercial models in various curriculum areas. At this level of complexity of conceptualizing the competencies and performances needed in teaching, there might be a need for the Teaching Assistant (TA) to give diagnostic tests, to prescribe needs, in a behavioral form, and then suggest activities. Such experiences would come from a base of very close collaboration between school and college faculty. Both need to understand that each, school and university, have a unique and vital role to play in synthesizing two forms of knowledge.

We would now have prospective teachers working with small groups, looking at instructional problems but still not being concerned with total responsibility for the CIS. The next level of complexity would be responsibility for the total instructional program. Now, it does not seem reasonable to place an inexperienced person in a classroom with an experienced expert and expect the inexperienced person to gain with the highest degree of profit. Arthur Combs[11] has simply stated this concern in the training of

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[11] Combs, Arthur. *The Professional Education of Teachers: A Perceptual View of Teacher Preparation*. Boston: Allyn and Bacon, 1965.

teachers. Experienced, expert teachers do certain things in certain ways only because they are, indeed, experts. Inexperienced prospective teachers ought not to try many things in the same way as experienced teachers. Many means ought to be modeled by prospective teachers to get a "feel" for the approach, but not all approaches to structuring the learning environment ought to be laboriously tried over and over to do it "just like the cooperating teacher." Inexperienced teachers cannot do what experienced ones do and cannot do them to the same degree they do most things. This must be what Dewey[12] was referring to when he looked at student teaching as a time of experimentation and "trying." Experienced teachers do things differently because they work intellectually at a higher level of complexity than do inexperienced teachers. They see the CIS as a general instructional system and because of their perspective they are able to place concerns into categories, and to relate these categories, in order to plan for solutions of classroom problems.

Noller[13] discusses this problem:

> Perhaps one of the primary sources of faculty communication between people and therefore one of the greatest inhibitors of creativity in human relations is a misunderstanding or lack of understanding of the levels of abstraction. Often, the final determination of and the success of the "best" result will depend upon the ease of effectiveness with which it can be visualized, understood and communicated to one's self and/or others at a given level of abstraction.

This difference in levels of abstraction between cooperating teachers and student teachers has many implications for structuring the field experiences of prospective teachers. At this juncture we are concerned with the point at which the student of teaching starts looking at the total responsibility of the CIS. In what way do we raise the level of complexity at this point?

Team Student Teaching (TST) (Level 3)

With a student teacher working with a cooperating teacher who views the classroom at a different level of abstraction and with the jump in complexity from small group to total classroom responsibility, it would seem that both of these concerns, abstraction and complexity, could be better dealt with in a team student teaching approach during the *first* student teaching experience. Two student teachers would be assigned to a cooperating teacher. The student teachers would explore the team-teaching concept while working together on the same level of abstraction in learning to gain control over the complexities of the CIS.

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[12]Dewey, John. *The Relation of Theory to Practice in Education*. Washington: Association for Student Teaching. *Bulletin No. 17*, 1962.

[13]Noller, Ruth B. "Some Applications of General Semantics in Teaching Creativity." *Journal of Creative Behavior*, 5:4, 1971, 256-266.

In some initial studies[14] of student team-teaching we found that students talked to each other to clarify many issues and worked out many of these issues that they perceived as problems, that perhaps would not have been perceived as concerns by the college and field instructors. This team approach to organizing the instructional program allowed for shared solving of the complexities. When a difficulty arises that ought to be discussed with the cooperating teacher at once, two people could leave the room, leaving one student teacher to carry on. As the *initial* student teaching experience, team student teaching holds great promise for helping prospective teachers deal with a higher level of complexity very effectively.

Single Student Teaching (SST) (Level 4)

But there then ought to be a second student teaching experience where the student teacher has a chance to build on his firm foundation to become confident in being able to control the full complexity of a classroom instructional situation. The student teacher would be a single teacher-in-training with a cooperating teacher. Both the TST and the SST might be for eight weeks in the same room or the TST might be in a room for one-half day and the second eight weeks the two students would shift to a new room with new students for an all-day experience.

The Internship (INT) (Level 5)

The dump and run philosophy might be characterized more appropriately to the first-year teacher. We have done a very poor job of helping young beginning teachers become initiated into the full complexity of the first in-service teaching assignment. *Teacher Education and Training* (known as the St. James report) from Great Britain labeled the treatment of first-year teachers a disgrace to the profession. We ought to develop the master teacher construct or visiting professor program for first-year teachers. State institutions could divide up the state, with the state department having a segment. It would help young professionals gain control over the highest level of complexity. Certainly such collaborative constructs between school systems and college and/or state departments is one area that ought to be explored if growth in quality of beginning teachers is one of our goals.

Model of the Classroom Instructional Situation

We have suggested that learning how to perform in a CIS cannot be done within one type or one span of experience. Such a complex system is best

[14]The author has worked with the team student teaching concept when Wayne State University, College of Education and the Detroit Public Schools collaborated and when the College of Education, Kansas State University and the Manhattan Public schools collaborated. Also see Languis, Marlin, Stull, Lorren, and Kerber, James, "Teaming: Innovation in Teacher Education" *Educational Leadership*, May, 1969; Smith, E. Brooks, et al., "Toward Real Teaching. A Team Internship Proposal" *Journal of Teacher Education* 14 1, Spring 1968

FIGURE 1

Complexity Levels in Phases of Teaching Preparation

LEVELS	
5. *Intern—first year teaching*	Total responsibility Full day—Master teacher
4. *Single Student Teaching*	Total responsiblity Full day with cooperating teacher
3. *Team Student Teaching*	Total classroom planning Team instruction One half day
2. *Teaching Assistant*	Small group instruction Testing Learning aid development Module building
1. *Teacher Aiae*	Materials duplication Room environment Tutorial

learned in a hierarchy of skills best mastered in levels of complexity which build up as a result of collaborations, cooperation and communication between schools and colleges.

Such relationships depend on a reasonable degree of precise communication. In other words, we need to understand what each other is talking about. This preciseness, as in all uses of language, depends on concepts which serve as common referents for the parties in the communication act. Inasmuch as the training, both in the college classroom and the field experience classroom, centers on the classroom instructional situation, a model of the CIS was developed: This model is an attempt to categorize major components and not to be definitive. It has been found that in the process of talking about strategies prospective teachers themselves start to differentiate various components in the process of curriculum planning and in discussing performance problems in field experience situations. Inasmuch as instructors and prospective teachers have categories on which to base communication, they tend to communicate. Presentation of such a model ought to be made to prospective teachers from the very beginning of their field experiences (Level 1). Thus, target categories could be agreed on by instructors at college and in the field, and study of competencies and performances can be coordinated with collaborative efforts.

In looking at this problem of communication, what I discovered was that definitions are a good start at developing conceptual frameworks but are really a very low level of knowledge and are difficult to translate into practice. This realization led me to consider the value of conceptualization; the consideration of conceptualization was really the result of realizing that the use of words in definitions is an attempt to name the essential categories of concepts. And a conceptual approach encourages more freedom for prospective teachers to manipulate factors in a CIS because no value structure is implied in establishing attributes of a concept.

In working on this concept, I began to see that in looking at the teaching-learning situation I had to get at the generic, essential attributes or factors that made up the two concepts, teaching and learning.

Concept of Method

To conceptualize a relationship, one needs to have a more generic concept than either teaching or learning. To show that they are related or show the existence of no relationship, the concepts need to be looked at and modeled using the same ground rules for both concepts. I hit upon the concept of method, not methodologies, that were examples of methods, but the generic concept itself.

Methods as a concept, as loosely as it is used in teacher education circles, refers to four basic attributes of intelligently attempting to reach a goal. Note that if any educational enterprise is intelligent, it can be analyzed and talked about by using the concept of method. To understand the basic concept ought to be one of the first pedagogical concepts a prospective teacher studies.

The first attribute in method is the establishing of an objective. All intellect acts (we prefer "intellect" because it would include all forms of methodic functioning, i.e. cognitive, affective and psychomotor processes) are cases of going toward a pre-set end-in-view. There can be accidental adding of content in a prospective teacher's store of knowledge but we can't say that it was methodic. It may be good but not methodically acquired.

To be methodic one must reflect on future events or results. In other words, for teachers to plan methodically for the learning activities of their students, they must have a clearly delineated *objective*, and teacher and student *acts* must be related to the objective. This basic concept in competency/performance education is a psychological principle that has been written about for decades. Thus, to consider objectives, to consider acts and to consider that there must be a *relationship* between *acts* and *ends* is to have considered three aspects of method.

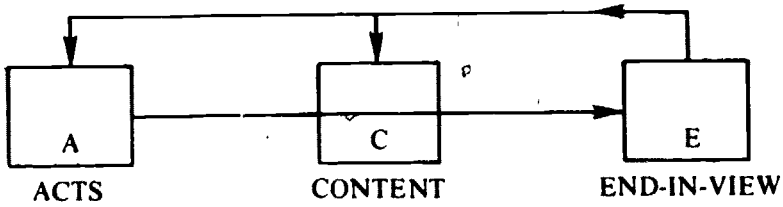
To engage in acts in order to realize an end-in-view without some sort of content is really impossible. In the same manner, it is rather difficult to discuss content without putting it in a context of some useful purpose.

A teacher can methodically guide students toward a goal. To be methodic the teacher must consider the *connection* between the *acts*, *con-*

tent and *end-in-view*. These are the four, not three, attributes of the concept of method. This simple concept can be one basis for collaborative effects especially when such efforts are based on clear communication between the training triad of college instructor, field instructor and prospective teacher.

In working with beginning students of pedagogy the level of abstraction in which theoretical concepts are presented has been found to be crucial. Even with students working right in classrooms at level one of field experiences, the way the theory is represented needs to be lower than the language or symbolic level. It was found that representing the attributes of a concept pictorially or model form was not only easy, it is sometimes fun because it facilitates understanding. We created a simple analog model of method which we have used to create a model of teaching and learning representing an observation framework used by prospective teachers.

Figure 2
Analog Model of Concept of Method



Note that the analog model pictures a connection between acts, content and end-in-view. This would apply to one lesson plan or an entire sequence of learning plans. Note too, that the end-in-view feeds back to both acts and content for purposes of adjustment while making progress toward the end or instructional objectives.

Connecting Teaching and Learning

We can translate the concept of method into a larger model that helps explain why the competency/performance philosophy of education makes good pedagogical sense. In trying to develop an observation model establishing the connections between teaching and learning I developed a model of instruction which pictures the connections.

The attributes of method can be translated into attributes of teaching and learning if we help prospective teachers learn one basic principle—*teaching and learning are methodic processes*. If we accept this principle, we can say that teaching can be *conceptualized* as teaching acts, teaching content, and teaching ends-in-view. Learning can be conceptualized as learning acts, learning content and learning ends-in-view. These simple conceptualizations

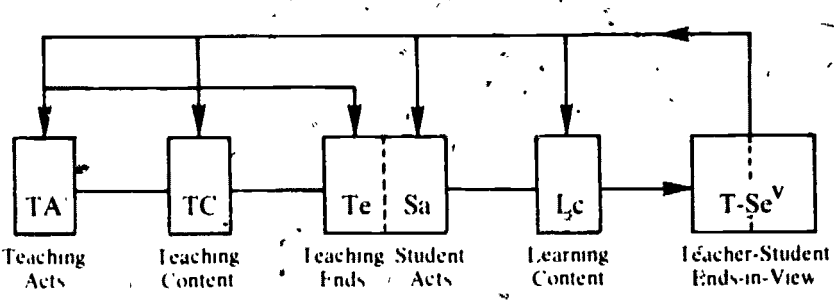
reveal no startling new information to hardly anyone in teacher education. They become helpful when prospective teachers start connecting the concepts to form a larger model as pictured in Figure 3.

"What is the purpose of teaching?" is a question we can ask prospective teachers. "The transmission of knowledge" answer ought to be rejected because of their observation and for psychological reasons studied in their course work. Language can be transferred but not the concepts that the language represents. These types of discussions can cause a great deal of cognitive dissonance in some prospective teachers but they can be helped to see that "teaching," as a specific, pedagogical term could only refer to language behavior and later change this to symbolic acts to include verbal and nonverbal acts.

Learning can be seen to be an individual affair and that can only be done by the person doing the learning. Prospective teachers can learn that the purpose of teaching is to encourage students to become involved in learning activities or student acts. This is one key to training competent teachers and is one relationship between teaching and learning. The end of teaching is identical with the beginning learning. In putting together a concept model of the connections of teaching and learning, the attributes of teaching ends and learning or student acts would have to go into the same slot (Figure 3) the first connection in modeling the relationships of teaching and learning requires perspective teachers to be designers of learning programs, not transmitters of knowledge. This role is basic to effective learning programs in the CIS.

The second connection comes from another question which can be asked of prospective teachers. "What is the difference between teaching and talking?" This is an interesting pedagogical problem which can be related to college classroom or field experience situations. To fully understand the answer and how it relates to teacher training we must carry through and construct the concept model of the relationship of teaching and learning.

Figure 3
Attributes of Teaching and Learning and suggested Relationships



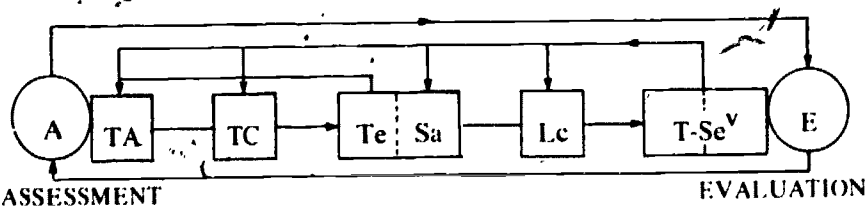
We can only delineate between talking and talking as teaching when the teacher has established an objective with the receiver of teaching acts. In

other words there must be a teacher-student end-in-view (T-Se^{v}). This synthesizes teaching and learning into one methodic whole which we call instruction.

There is an explicit understanding on the teacher's part as to the end-in-view. This structures his teaching acts, teaching content and sets in the nature of the student acts. This must be communicated to students. Random conversation is not teaching. Neither is talking to a group about an area without expressing a pre-determined end-in-view. In keeping with the nature of methodic or intelligent learning acts, the student can not engage intelligently in learning activities unless there has been established a pre-determined end-in-view. This is good pedagogy and good learning theory. What has become increasingly apparent to me is a growing sophistication on the part of teachers and students concerning the value, relative to contemporary culture, of the knowledge or objectives being learned in today's curriculum. For this reason there must be greater decision-making on the part of teachers in developing sequences of objectives as to whether they can communicate the worth or value of the objectives they encourage their students to seek. For this reason, in this version of the model presented, I have translated the teacher-student end-in-view into T-Se^{v}. This "v" symbolizes that the concept of the commonly held ends-in-view of curriculum must have an exponent of value both to teachers and to students.

Teachers encouraging learning and teachers communicating objectives are the two major areas of intersection of teaching and learning that ought to run through both learning domains of the prospective teachers. Prospective teachers learn to plan learning activities and, then, ought to be trained to allow students freedom to learn-to-learn. Of course, what is modeled is the basis for collaboration in studying the nature of teaching and learning. With the addition of two aspects, that of assessment in a non-value judgement context at the beginning of instruction and that of evaluation to see how close students came to realizing the end-in-view, I have created a simple analog model (Figure 4) of the essential components that can be used when thinking of, observing, working with, and planning for students the total classroom instructional situation.[15]

Figure 4
Analog Model of Components of Classroom Instructional Situations



[15]The model of the classroom instructional situation represented in Figure 4 is an adaptation of a research model for which the author was awarded one of the two 1974 ATE research awards

Summary of Concepts for Collaboration

To collaborate, people must cooperate for collaboration to be productive and growing, and it must be a two-sided or transaction relationship. Both sides must have something unique and valuable to contribute and understand the nature of both contributions. As teacher education attempts to move more into the professional spectrum, it becomes more apparent that two distinct types of knowledge (as found in professional levels of activity) are needed and need to be learned in the appropriate context. "Knowing that" or theoretical knowledge is the domain of the college classroom. When such courses attempt to become "practice," they have lost their unique contribution in the training of a professional. "Knowing that" knowledge as concept frameworks is the basis for translation into performance.

Such performance or "knowing how" knowledge is a unique part of the intellect. The skills of running a classroom instructional situation are encoded by participation in and observing of actual classrooms. Thus only through collaboration of college and field experience personnel can we hope to get closer to educating for professionalism in teacher training.

To facilitate such cooperative collaboration conceptual frameworks need to be used at an abstraction level as to include the prospective teacher. In as much as classrooms are the central focus of teacher education, a model of the CIS has been suggested as a communication tool to be used for purposes of communication between college and field instructors in collaboration attempts. Without such concepts of communication for collaborative cooperative efforts will deteriorate into old interactive constructs; we then have failed to grow. And our aim is to grow toward understanding each unique sector of training in the education of teachers.

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PARITY AND EDUCATIONAL PROBLEM SOLVING: A PROGRESS REPORT

The need to examine and re-examine educational goals and priorities always exists in a society such as ours where children and learning are valued. Today's world presents unique situations and challenges which are causing educators to question many existing practices. These challenges seem to result from a set of conditions that are common to most communities:

- dissatisfaction with university-based teacher preparation and the resulting growth of field-based programs;
- low teacher morale resulting in the growth of unionism, collective bargaining, and a new set of politics and professionalism;
- national, state, and local pressure for accountability resulting in mandates urging the decentralization of educational decision-making or a "returning of power to the people";
- a generalized concern for the provision of learning options at all levels resulting in such developments as the voucher plan, free schools, CBTE, etc.;
- a pervasive disenchantment with the typical role of Colleges of Education;
- a new supply and demand pattern in teacher employment caused by the end of the teacher shortage.

These conditions have caused a search for new patterns of behavior, including new ways of working together to effect change and innovation. Some believe the nature of change requires collaboration. Others question the efficiency and expediency of the process. Still others wonder what collaboration is all about.

The University of Florida Collaborative Model Project, funded by the Teacher Corps and USOE, under the direction of Dr. William Drummond, was developed in response to these conditions. For the project's purposes collaboration is defined as an experience in working together to solve educational problems and goals. The model assumes that five voices have a stake

in educational policy-making and should be represented with equal parity in collaborative efforts.

These voices include:

1. Public School Administration
2. Professional Associations—Classroom teachers
3. University Faculty
4. Students in Teacher Education
5. Community or Citizenry

The project called for additional operational guidelines including the creation of a support staff composed of a director, manager, assistant director and cadre of graduate students in teacher education. A staff anthropologist was identified to observe and document the project's history. A decision was made to involve one university, three surrounding counties, and area community colleges in the collaborative effort. And finally, the staff decided to press for community representation from those population areas most often ignored—the poor and minority groups.

With these decisions in mind, the first stage of the collaborative effort began. A group of status leaders representing the five voices and three counties were identified. Contacts were made personally and informally and followed by letters of invitation to the first meeting. Forty-seven leaders met several times and agreed to participate in the project, thus giving a sense of legitimacy to the effort. The norm of equal parity among voices was established early as the group discussed concerns and issues, and leaders began as the group discussed concerns and issues, and leaders began the difficult task of establishing guidelines for the formation of a policy working committee and identifying a statement of purpose from which that group could begin its operation. In early deliberation much time was spent dealing with questions such as: "What's in it for me?" and "What does collaboration require?" These discussions ultimately resulted in an agreement to pursue the following goal:

> ". . . To expand the professional growth opportunities of school and university personnel—ultimately to improve learning opportunities for students."

Leaders then caucused by "voice" and selected a policy working committee composed of 15 representatives, three from each of the five voices with each county equally represented. This working group named itself "The Collaborative Council." (See Appendix A.) Almost immediately the Council gave its official sanction to the improvement of staff development opportunities as a top priority goal. Since January 1974, the Council and staff have been involved in the following kinds of activities:[1]

1. A commitment was made to the establishment of a model for collaboration which is organized so that equity of voting power is guaranteed among

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[1] Grass-roots in Newly Planted Lawns are Tender Things. Excerpts from a mimeo report to Teacher Corps prepared by Anna Nuernberger, Project Manager.

the constituent groups. The Council adopted procedures, such as the granting of one vote to each individual, regardless of "voice," status, or constituency, which insured the realization of this commitment. Most decisions, so far, have been made by consensus.

2. Soon after beginning, the Council requested additional information on collaboration in general, and staff development and teacher centers in particular. In addition to attendance at the National Conference on Collaboration, held in Gainesville in February 1974, information has been and is being provided to the Council by the project's literature file and through informal seminars.

3. The staff prepared a brochure and a multi-media presentation which outlines the structure and purpose of the model project for the National Conference on Collaboration.

4. A three-day retreat was held February 12, 13, and 14, 1974, in the form of a management seminar. The work of the group focused on the goal of improving staff development opportunities with the institutions and organizations involved in the collaborative project. These immediate objectives were identified at that time by the Council:

A. Develop a public relations program designed to give greater priority to teacher education and staff development among the audiences of the "five voices."

B. Document and share the step-by-step processes through which collaboration is achieved.

C. Establish a viable model for collaborating locally.

D. Make ourselves knowledgeable of the needs of professional personnel in the three counties by gathering information systematically. In addition, this retreat served as a skills training session for Council members. The strategy used involved a structured approach to building an action plan which provided a system for the identification of goals, objectives, priorities, and implementation strategies. An increased feeling of trust and comfortableness among Council members also resulted from this activity.

5. The Council's action plan included steps to gain support for the project's goals through the use of existing channels of communications: faculty meetings, organizational newsletters and meetings, legislative delegation meetings, FEA convention presentation, etc. The Council also wrote a position paper on staff development, and candidates for political office have been informed of local personnel needs through regular contacts by members of the Council.

6. The Council participated with the project staff in the making of a training film entitled "The Silent Agenda." This film demonstrates some of the difficulties collaborative groups encounter in working together and helped the Council bring out some of its hidden agenda items.

For those beginning a collaborative venture, it seems appropriate to continue the story of the Florida model from the staff's viewpoint. While we do not presume to have answers for other locals or projects, this reflection may be of some help to those interested in the process.

During the pre-planning phase of the project, we began with a literature search. The staff was, at that point, looking for answers to the following kinds of questions:

- Who should be involved in collaborative efforts?
- What is collaboration? How shall we define it?
- Who should be involved in educational decision-making?
- How can and/or should policy and operation be separated?
- What steps can we take to insure that people feel included rather than excluded?
- How do we deal with conflicting institutional and individual interests?
- How shall we define community?
- What about the representation questions? How should voices be selected?

Educational literature on the establishment of collaborative efforts proved inadequate for our needs. Historically, these efforts apparently were based on the assumption that shared responsibility promoted improved teacher preparation. However, few studies included any systematic evaluation to support or refute that assumption. Typically those reviewed reported the nature and accomplishments of various consortia or cooperative efforts in teacher education. Only a few mentioned problems or pitfalls encountered, and none made explicit the processes used to set up and keep collaborative efforts moving. Thus, while literature sometimes indicated which groups participated in policy councils, it did not specifically explain how representatives were chosen. Steps involved in organizing the working patterns of councils were generally not discussed, and analysis of factors related to successful and unsuccessful efforts was almost non-existant. Terminology also presented a problem. Were cooperative, partnership, consortia and collaborative efforts the same thing?[2]

Since the literature did not provide any definitive answers to our many questions, the staff relied heavily on personal experience and anticipatory problem-solving strategies during the first year of operation. Several problems came to mind which had the potential of sabotaging the growth of any collaborative efforts in our particular locality:

- lack of an explicit data base from which operational guidelines might be generated;
- a university reward system with a set of norms that appears to foster competition rather than collaboration;
- a skepticism on the part of public school personnel toward university faculty;
- a state-wide emphasis on accountability that was being interpreted in a competitive mode;
- low priority placed on public school and university staff development;

[2]Baker, M. Daniel. "Institutional Readiness for Collaborative Efforts in Teacher Education." A dissertation proposal. University of Florida (January 1974)

- an early skepticism on the part of the collaborative council members toward the project staff and each other.

Keeping these problems in mind, we decided to begin by placing our particular collaborative model in a system which would allow us to try it, study it, report on it, and revise as feedback indicated. This system includes data from literature, council participants, an outside observer's record, and staff reflections and observations. Processing occurs regularly, and structures and strategies are analyzed and changed when appropriate. As a staff, we have also identified a statement of beliefs from which we operate. Based upon these beliefs, goals and targets our particular collaborative efforts have been specified (See Appendix B). These are being examined and revised continuously.

As one looks at the council's progress to date, it appears to have involved itself in an on-going study of collaboration. Trust building, the exploration of ways to make a difference in local politics, and the identification of ways to share power among the five voices without "losing" seem to have been the focus. These have been difficult issues to resolve, because mechanisms do not readily exist in our various systems which facilitate dealing with them. Despite the absence of legitimate power the Collaborative Council has influenced local educational policy decisions and should continue to do so as our state moves in the direction of implementing the teacher center concept. Some generalizations have evolved from our first year's experience that may add insight into the nature of the collaborative process. These "learnings" are, as is the nature of the project, tentative and more process than product oriented:

1. Anthropological analysis appears to be a valuable data source from which the structure and process of collaboration may ultimately be identified. To cite one example:[1]

> "The staff and Council should recognize that the form and content of the behaviors and attitudes on which the process of collaboration is built are not common to all life styles. They are standard urbane, middle management repertoire, but far from universal. Training in these skills is recommended."

Participants in collaborative efforts may function more effectively if they can operate from a common knowledge and skill base.

2. Council members' responses to open-ended questionnaires and staff observations of council meetings form the basis for the following additional thoughts on collaborative efforts: Each voice appears to need time to deal with ego needs and "what is in it for me?" kinds of questions prior to thinking "collaborative" thoughts. It is appropriate to spend a great deal of time in early collaborative efforts allowing individuals to establish feelings of identity and power before any power-sharing can occur.

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[1] "Summary of Observations, Collaborative Model Project Council" A mimeo prepared by Alanson Van Fleet, May 1974

- Those in established power positions are more likely to be early and willing collaborators if they have nothing to lose. Later those with less visible power collaborate because they see a chance to gain. Collaboration should be a win-win effort for all parties.
- Transfer of leadership from a support staff to a collaboration council is a delicate maneuver. It needs to be carefully planned and implemented in small but visible steps. Real council leadership can change climate and interaction patterns dramatically, but timing appears to be a critical variable.
- Those involved in collaborative efforts often have conflicting commitments. Problems of time and energy drain are to be expected.
- Establishing commitment to a collaborative endeavor may require the identification of achievable short range objectives and goals. A retreat for those involved, held far enough away from daily activities, helps to accomplish this.
- Council members eventually need some visible evidence that collaboration efforts have the potential for making a difference.
- The degree of status leader support from the various voices appear to influence council members' feelings of worth and competence as well as the extent of their participation in meetings.
- Literature from areas other than education (such as industry, management, and military sources) has helpful data for collaborative and staff development efforts.
- A support staff can model desired collaborative behaviors. An open and relaxed climate seems to result from this effort.
- The collaborative process makes sense ideally. In reality it is slow, tedious, often not fun and, perhaps, a last resort to solving educational problems. The idealism of it fades quickly, but commitments to the people involved seem to grow among participants.

As one looks to the future of the Florida Collaborative Model, the following considerations come to mind:

- Some attempt should be made to identify competencies needed for effective collaboration. We have made a start in this area. (See Appendix C.)
- Identification of skills training approaches (for human relations skill development, finance and budget components, and analysis of the various organizational systems) and preparation of training materials is indicated.
- The support staff did attempt to provide a model of behavior that established an open and relaxed atmosphere for the Collaborative Council. An analysis of this "modeling" might provide additional insights and guidelines.
- The question of the Council's continuity and future needs to be explored because of the temporary nature of all funded projects.
- Several questions related to representation still exist. The professional associations and school administration personnel have the only officially identified selection routines. Students, university faculty and

community have somewhat fuzzy procedures. The question of representation itself has been raised. Can any council member really represent his "voice"? is an unresolved issue.

- The Council may need to re-examine its goal priorities in light of some recent local happenings related to the teacher center movement. A more appropriate goal may be to provide training for participation in collaborative efforts. This question will probably be an early agenda item as we resume operation in the Fall.

The Florida Model has been fraught with spurts of activity and plateaus of inertia. Despite the frustrations, collaboration is still in the heads of those who believe in it. However, we have lost some idealism or at least become more realistic and pragmatic in our feelings toward the concept. The transition from conflict and competition to sharing and cooperation is not an easy process.

It is often difficult to understand where each one comes from, and as Linus in a recent Peanuts cartoon put it:

> "Just when we think we're winning . . . there's a flag on the play."

We are proceeding as the saying goes . . . "very carefully." Literature on military strategies and past history tell us that circling behavior requires a common enemy. Perhaps the enemy is us!

(This paper is intended as a first report. As observational data is analyzed, structures and processes for collaboration may emerge. These should have potential for possible replication in other areas and will be reported in future publications.)

Appendix A

Childhood Education	Secondary Education	Vocational Technical Education

3 Student Representatives

Alachua County	Bradford County	Marion County

3 Citizen Representatives

Alachua County	Bradford County	Marion County

3 School Administration Representatives

Alachua County	Bradford County	Marion County

3 Teacher Representatives

University other than Education	College of Education	One From Two Community College

3 College Representatives

(5 Voices, 15 Participants)

Collaborative Council

Appendix B

Project Staff's Statement of Beliefs

- Educational interest groups have some common goals.
- Establishment of an equitable power base for decision-making is a desirable goal and a possible one to achieve.
- People, when given good reasons for doing so, are willing to change and to explore new ways of working together.
- Educational change occurs collaboratively in a win-win frame, i.e., with effort resulting in some pay-off for all.
- Sharing of needs, interests, ideas and resources will result in educational improvement.
- Cooperation and collaboration among institutions, agencies and organizations is more productive than competition and distrust.
- Consensus among interest groups (parents, students, teachers, state departments, universities, lay citizens, etc.) can be obtained.
- Meaningful change can occur only with grass-roots involvement.
- Groups must have the power to control their own destinies.

The Florida Collaborative Model Project Goals

- Identification of mutually agreed upon goals and objectives for working together on teacher education and staff development.
- Identification of ways and means to combine the resources of the college, school systems, professional organizations, and community to improve teacher education and staff development.
- Identification of collaborative arrangements that ensure parity.
- Identification of the elements contained in a successful collaboration.
- Creation of process-oriented workshop package suitable for use with educational interest groups endeavoring to become involved in competency-based collaborative arrangements.

Collaborative Model Project Targets

Where We Are Now ⟶	*Where We Want To Be*
Ambiguous notions about collaboration exist.	A set of assumptions appropriate or basic to a collaborative mode exists.
Vague expressions of collaborative successes and failure.	Successful strategies and processes utilized in a collaborative mode are made explicit.
Institutional and/or interest group competition is the predominate mode of operation.	Power sharing or parity arrangements from the basis for educational decision-making.
Exclusive goal setting by various educational interest groups.	Identification of mutual or common goals by diverse educational interest groups in a collaborative frame.
Inefficient, haphazard and costly resource utilization.	Collaborative groups develop new ways of sharing resources for common-goal achievement.
Ignoring differences, hidden agendas, etc. results in conflict or stalemates.	Acceptance and capitalization of differences among interest groups is maximized.
Low priority placed on career long teacher education and staff development.	Career long teacher education and staff development is valued by the profession and the community at large.

Appendix C

Competencies for Collaboration

A Beginning List

1. Help others identify mutually agreed upon goals and objectives for working together on building cross-cultural community and involvement in education.

2. Create and apply a set of criteria or guidelines for collaborative arrangements that ensure parity, equitable power-sharing.

3. Create a climate that causes groups to develop a commitment to cooperation.

4. Help others develop a readiness for changing outlooks, expectations and ways of working.

5. Create strategies for the assignment of roles and responsibilities that are acceptable to participating personnel.

6. Develop an implementation plan that allows those engaged in collaborative efforts to make day-to-day decisions independently.

7. Suggest strategies for identifying resources and utilizing them in new ways.

8. Identify issues involved in building collaborative efforts and anticipate possible questions such as:

   What strategy should be used for obtaining community participation?

   What plan is most appropriate for making initial contacts with members of various groups.

   How can "real" leaders be identified?

   What are some ways to gather data on leadership patterns in unstructured groups?

   How can student representatives become stabilized or can't they? How should they be selected?, etc.

9. Help others continue the spirit of innovation by creating an atmosphere that fosters continuing innovation and stimulates enterprise.

10. Design a set of procedures for implementing a collaborative effort.

11. Design a set of procedures for continual data collection on the collaborative process.

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Lawrence Moburg
Ronald Podeschi
Diane Pollard
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PROJECT FOLLOWTHROUGH: INTERDEPARTMENTAL COLLABORATION

Introduction

The Project FollowThrough Elementary Education program was developed as a result of a general reorganization of elementary programming at the University of Wisconsin-Milwaukee. There is no longer only a single pattern available to elementary education students. They may now select one of four models based on their interests, needs, and career plans. Each model has a distinct philosophy and offers the students widely varying experiences.

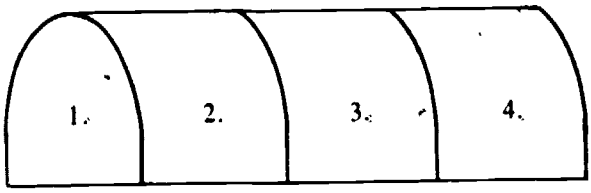
Project FollowThrough is an interdepartmental effort, with staff members drawn from the Departments of Curriculum and Instruction, Cultural Foundations, and Educational Psychology. The staff shares many important beliefs and assumptions which served as the basis for program development. These beliefs and assumptions are:

1. Students ought to be able to make choices about the nature and organization of experiences they have in their professional preparation.
2. Teaching is a cooperative activity and teacher education programs should provide opportunities for cooperation in a professional context.
3. The functional separation of educational inquiry into the various areas (e.g. educational psychology, administration, special education, etc.) for research purposes may not be viable in teaching students to teach.
4. Field experiences should be integrated with—not separate from—course work.
5. Practitioners in the field should be involved in the development of the program.
6. Learning to teach is frequently stressful and students should have easy access to counseling services.
7. A wide variety of human and material resources should be readily available to students during their professional preparation.

8. The organization of teacher training programs should model their value orientation.

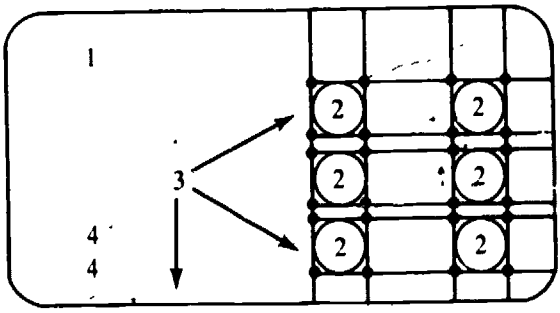
A central problem for the staff in organizing a program which presented students with choices and at the same time encouraged collaborative activities was that many students seemed to neither want to make choices or collaborate. This phenomenon may be explained by the fact that the criteria for success as a teacher is different than the criteria for success as a student. Students in professional programs are people in transition and as such are likely to move back and forth between student behaviors and teacher behaviors. Expecting that such role ambivalence would affect student behavior, the staff attempted to design a program to continually present them with choices and opportunities for collaboration. The program had three major components: Field Elements, Instructional Elements, and Community Elements. These components are displayed below.

Field Elements



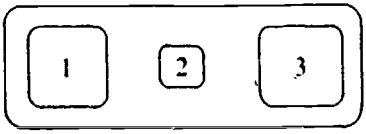
1. Observation in Schools and Community Agencies
2. Service Experiences in Community Agencies
3. Student Teaching
4. Individually Designed Follow-Up Field Placements

Community Elements



1. Community Meetings
2. Support Groups
3. Informal Interaction
4. Advisors

Instructional Elements



1. Learning Units
2. Independent Study
3. Presentations by University Staff, Students and Resource People

The population of students in Project FollowThrough was drawn from students just entering the School of Education, i.e. students beginning their junior year. Students at this point in their program were selected for two reasons: 1) to rationalize a coherent set of field experiences for students over a two-year period and 2) to provide students and staff with opportunities to make decisions about the desirability of pursuing a teaching career based on contact in the field. The program's field elements proceed in a developmental sequence from observations in schools and community agencies through the student teaching experience. During the first semester each student served as a field worker for two days each week in the school where he/she was going to student teach. In addition each student worked in a community agency which served people from approximately the same area as the school where the student was doing field work. This component of the program was designed to meet the Wisconsin Department of Public Instruction Human Relations Code. The Code requires that students have "direct involvement with members of racial, cultural, and economic groups and/or with organizations working to improve human relations, including intergroup relations." Each student spent a minimum of one-half day (4 hours) in a non-school community placement. Experiences directly linked to public school programs were not considered, i.e. Head Start tutoring programs, after-school recreation programs, etc. Examples of the placements in which Project FollowThrough students were involved included:

- A church-sponsored sewing, music, arts and crafts, drama, and scouting program
- The Milwaukee Inner-City Arts Council Drama and Paint Box Program
- A community center offering recreational and medical services
- Cognitive mapping (assessing a child's learning style) and team tutoring at a community center
- A University of the Streets Education Program involving recruitment, tutoring, and counseling community high school drop-outs
- Recreational programs within community housing projects
- An innovative community school's parent subcommittee in charge of planning "community" curriculum

Each student was given a list of potential placements in the general area of the school in which he/she would be teaching along with a description of the

probable activities within an agency or program. After visting each potential placement students were asked to select the program in which they wished to work. The staff of the host agency or program retained the right to refuse to accept a student whom they believed should not be placed with them.

During the second semester students did their student teaching four full days each week in the school in which they had done their field work.[1] Throughout the year field experiences were supervised primarily by the same University supervisor. That supervisor then became responsible for advising the student in the development of a senior year program. A student's senior year may or may not include additional field work. Such follow-up field work might be for any or all three of the following purposes: 1) further opportunities to develop teaching ability in an area of weakness, 2) providing practice opportunities for new skills and 3) experience in a setting significantly different from where the student did student teaching.

The Community Elements of the program are designed to be the mortar which holds the Field Elements and Instructional Elements together. The development of the Community Elements of the program was aided by two factors: 1) complete control over the organization of students' schedules and 2) the unrestricted use of an entire floor of an old campus building to schedule as needed. This unusual flexibility in the use of time and facilities allowed the staff to respond effectively as the demands on the program changed. When there was a greater than usual need for the entire group to meet to discuss a problem or share information the staff could expand the length of the community meetings. Similarly the time the students worked in their support groups or met informally or talked to their advisors could be expanded or limited depending on the emerging needs of the group. The foundation of the program's Community Elements are the support groups. These are self-selected groups of 4-5 people working at the same school placement. Support groups maintained their membership for the entire year and served at least four important purposes: 1) provided a forum for initial discussions about program changes or other issues students wished to develop; 2) provided a secure and intimate group in which each student could talk about his learning progress as well as any problems he was encountering; 3) provided a group to which the student could turn for opinions about his work, and 4) helped meet those social and emotional needs of students which might otherwise be overlooked in a rather complex program.[2]

The instructional components of the program included learning packets which could be completed individually or by several students collectively. The learning packets were designed on a "go/no go" basis. A student either

[1]Our program made use of five inner-city elementary schools. At the beginning of the year each student had an opportunity to spend a day visiting each school. It was intended to give students as much choice as possible in selecting their school assignments—as it turned out students demanded the right to control the process of school assignment. That event is discussed later in the paper.

[2]The support group idea used in designing the program was first developed in the NEXTEP Fellowship Program at Southern Illinois University-Edwardsville under the direction of Merrill Harmin.

satisfactorily completed the requirements of the packet or did not; letter grades were not assigned. While some learning packets were required of all students, most learning packets were available to be chosen by the student in consultation with his supervisor.[3]

In addition to learning packets, students frequently engaged in independent study activities. Several students participated in an exchange program with North Carolina A & T State University, many visited alternative schools in the Milwaukee area, two participated at the ATE convention in Chicago and visited the ASCD convention in Anaheim, and one spent time working in the Southeast Free School, an alternative public school in Minneapolis, Minnesota. All of these activities were scheduled in conjunction with seminars and presentations called for by the learning packets as well as presentations and activities developed by staff members in their areas of responsibility.

Program Assessment

In any program where an attempt is made to design a program using innovative or untested approaches, the twin processes of evaluation and adaptation must precede further program development. Therefore, a fairly extensive multiple choice questionnaire, designed by the staff to evaluate students' responses to Project FollowThrough, was administered to the students at the conclusion of the first year of the program, after they had completed their student teaching. The students had been informed that the purpose of the questionnaire was to evaluate the program and to help the staff in planning for the next year. The only identifying information the students were asked for was the name of the school to which they had been assigned as student teachers. The instrument had four sections:

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[3] The following learning packets were available to students. Required packets are *ed. Three of the five required packets were in response to the State Human Relations Code.

*I	Classroom Organization Curriculum Package
II.	Listening Curriculum Package
III	Writing Projects Curriculum Project
*IV	Tutorial Techniques Curriculum Package
V	Lesson and Unit Planning Curriculum Package
VI	Interpersonal Communication Package
VII	Spelling Instruction Curriculum Package
VIII	Promoting Creativity Curriculum Package
IX	Art Instruction Curriculum Package
X	Simulation Games and Role Playing Curriculum Package
*XI	Self-Concept Curriculum Package
XII	Teaching and Learning in the Three Domains Curriculum Package
XIII	Individualization of Instruction Curriculum Package
XIV	Mathematics Instruction-Concepts and Skills Curriculum Package
*XV	Racism in Instructional Materials Curriculum Package
*XVI	Sexism in Instructional Materials Curriculum Package
XVII	Teaching of Science Curriculum Package
XVIII	Motivation and Learning Curriculum Package

1) Choice Autonomy
2) Evaluation of Program Structure
3) Interpersonal Influence
4) General Project Goals

The first three sections were designed to assess the extent to which the beliefs and goals set forth by the staff were perceived and met by the students. The fourth section asked students to assess the various aspects of the program structure.

For the purpose of analysis the responses to each question were tabulated and the total response frequencies for each section of the questionnaire were examined. Results for both individual school groups and for the total group were compared. In this way, an analysis could be made of general trends for all of the Project FollowThrough students as well as for each of the four schools in which students did their teaching. A very brief description of each of the sections and the results are reported below.

I. Choice–Autonomy

This section had two parts. In the first part, students were asked to indicate the degree of autonomy they felt they had in choosing the various program activities as well as the people they would work with. For instance, they were asked to indicate the degree of autonomy they perceived they had in choosing the school where they did their student teaching, in selecting other students with whom to work and in deciding what to do while on campus. For each question the degree of autonomy perceived was indicated on a five-point scale ranging from a feeling of complete autonomy to a feeling of no autonomy in decision-making.

Using the same questions and rating format, students were asked, in the second part, to indicate the degree of autonomy they thought *other* students in the program had in making choices. The purpose here was to ascertain whether individual students perceived themselves as having experiences similar to the other students in the program.

The responses to the first section of this part indicated that the majority of students felt that they had a moderate to moderately high degree of autonomy in making choices.

The same kind of trend was found in the students' responses to the amount of autonomy they perceived other students in the program had. Students at all five of the schools indicated that other students had a moderate to moderately high degree of autonomy in making choices.

It is probable that the degree of autonomy the students perceived corresponded to the autonomy they had. While the staff attempted to orient the program toward student decision-making, a number of decisions were still made for the students. In addition, other decisions were made by the students within certain parameters. For example, while students could choose where they wished to teach, they could only choose from among five schools.

II. Evaluation of Program Structure

In this section, those aspects of Project FollowThrough which made it unique were listed and students were asked to rate them on two dimensions.[4] First, they were to indicate how important they felt each aspect of the program was by rating it on a five point scale from very important to very unimportant. Second, the students were asked to rate whether their experience with each aspect of the program was more positive or more negative on a similar scale.

A subsection of the program evaluation concerned the students' relationships with the staff and with each other. This part was designed to assess the success of the staff in developing an atmosphere in which students felt free to both express themselves and to cooperate with each other and with the staff members. These interpersonal aspects of the program were rated on the same two dimensions as the other aspects of program structure.

The majority of students indicated that the objective elements of the program were viewed as moderately high to highly important. When the students were asked if their experiences with the various aspects of the program were positive or negative, the response frequencies dropped slightly although they remained positive.

A similar pattern was found in the students' reactions to interpersonal aspects of the program. The majority of students saw these as highly important and their experience was moderately positive.

These findings suggest that students did perceive these elements of Project FollowThrough as important and they reacted in a fairly positive way to them.

III. Interpersonal Influence and Cooperation

It had been hoped that the students would make use of a variety of individuals including other students, staff members, and cooperating teachers in making decisions. This was construed as one dimension of cooperation. Students were asked to indicate how important each of six groups of people or individuals were in helping them make decisions. The six groups were: 1) my support group, 2) other students in the program, 3) my supervisor, 4)

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[4]Unique Elements of Project FollowThrough

1. A year-long field experience
2. Staff composed of faculty members from various departments in the School of Education
3. Availability of University Psychological Services
4. Opportunities to make choices regarding the nature of University and field experiences
5. Development of strong interpersonal student and staff relationships
6. Use of learning packets for instructional purposes
7. Easy access to human and material resources provided in a materials center, a curriculum library, and professional seminars
8. Flexible scheduling of activities such as seminars, conferences, school-group meetings and field trips to meet student needs and interests.

other staff, 5) the cooperating teacher and 6) my own interests. Activities in which decisions were made included such things as choosing schools, activities for the classroom, and activities at the university. For each activity, the students were to indicate whether *each* of the individuals was a strong, moderate, or weak influence.

In all five schools, students indicated that the cooperating teacher and the Project FollowThrough staff other than the supervisor were very important to the students in helping them make decisions. In addition, self-interest was consistently a weak influence. This latter finding seems to suggest that the goal of successful intergroup cooperation was reached.

In three of the schools, Project FollowThrough students and the university supervisor were both perceived as strong influences, while in the other schools, these were moderate influences.

More variability was shown in responses to the importance of school group and support group influence. However, either moderat or strong influence was indicated in all of the schools.

The findings from this part of the questionnaire suggest that there was a moderate to strong degree of cooperation among students, between students and staff and between students and cooperating teachers. The students were able to see others as resources and felt free to give and receive help from them.

The last portion of this section attempted to assess the type and extent of cooperation between students and their peers, cooperating teachers, and university supervisors.

In general, students felt their support groups helped them examine both professional and personal concerns. Furthermore, a majority of students said they were satisfied with help they received from peers, especially where school-related problems were concerned. Most students noted that they actually tried the strategies suggested by their peers and believed that their support group was capable of functioning more efficiently as a problem-solving group as the year progressed. This evolving group cohesiveness is clearly illustrated in responses to the following question:

"How well were you able to cooperate with other students in the program?

In September? In January? In May?"

On a five point scale, with one indicating "very well" and five indicating "not well at all," most students marked three to describe how well they cooperated with other students in September, two in January, and one and two in May. This may indicate that as students accepted more responsibility in classrooms, they encountered similar problems, and that interaction within the support groups was enhanced as they shared perceptions, methods, and materials. Also, students completed this questionnaire at one of the final meetings at the end of a mentally and physically demanding year. Their perceptions about the effectiveness of the group and the degree of their cooperation were undoubtedly influenced by a growing personal confidence, a sense of completion at the end of their student teaching experiences, and feelings of nostalgia.

The student teacher/cooperating teaching relationship was rated (nearly unanimously) very satisfactory during both the first and second eight weeks of student teaching. This is not a surprising response in view of the fact that students carefully chose their cooperating teachers after observation and small group instruction in several classrooms.

There was general agreement among students that their university supervisor did understand their strengths and weaknesses as a teacher. There was no agreement about whether or not they were able to express their anxieties to their supervisors. Some students were perhaps indicating a reluctance to influence their supervisors' perceptions of them by confiding uncertainties and anxieties. The support group seemed to be a more psychologically safe place to express doubts and fears.

Students indicated that there was good communication between them and their supervisors. This may be because of the close contact with their supervisors throughout the year.

IV. General Project Goals

The final section of the questionnaire consisted of twenty-two statements. The students were to respond to each statement with a Likert-scale type rating to assess reactions to general project goals. Statements included in this category concerned the community placement, planning for senior year, meeting a variety of professionals in the field, etc.

The staff, in planning activities and seminars at the university, wanted to encourage student interaction among school groups and interaction with a large number of students in the project. But some students did not agree that the staff completely accomplished that objective. Most students strongly agreed that program activities had enhanced interaction with large numbers of students. The smallest school group, however, indicated only moderate agreement, perhaps suggesting the desirability of the larger school groups where most diverse points of view would more likely be represented among students. The students in this smaller school group became a very close knit group and spent much of their time at the University together, rather than interacting with students from other schools.

While interaction with fellow students was not an interest or priority for all students, a majority of the students agreed that they had had an opportunity to meet a wide variety of professionals involved in education, as well as opportunities to extend their educational experiences beyond regular university and Milwaukee community activities.

Dilemmas

Ask a group of teachers to list shortcomings and weaknesses of university programs in teacher education. Then be prepared for an exhaustive, detailed enumeration of the problems in any given program. Problems encountered in this operational system have stemmed, primarily, from the necessity for

making additional demands on the time and energies of the respective administrative, academic and staff personnel. Other problems encountered stemmed from the difficulty of trying to integrate both theory and practice into the group and individual experiences of the Project FollowThrough students at the university and in the field placements. The staff realized early that it is one thing to philosophize about integrating theory *and* practice, freedom and authority, the individual *and* the group. To live and experience the dilemmas of attempting to implement these various syntheses is quite another. By reflecting back upon the year, some of these experiences stand out more than others in representing some of the ironical difficulties that were encountered in working with students.

Perhaps the central dilemma that was continually faced in one way or another is what Abraham Maslow called the "Helpful Let-Be." The staff believed that in order for students to grow in self-direction, both individually and in groups, they needed freedom. At the same time it was felt that students who have been conditioned to structured education for fourteen years are not generally ready for large amounts of freedom of decision-making and need guidance. The problem of finding that right balance was complicated by the fact that it was often far from clear when help was needed or whether the staff was just getting in the way of students exercising decision-making freedom [illegible] "Helpful Let-Be" balance may be troublesome for any teacher, but [illegible] a staff of six were attempting to coordinate a program for thirty-six, clar[illegible] of direction for this balance became consciously elusive.

A memorable event which perhaps best portrays the irony of this theme happened early in the year when the staff had set up a process in which they were attempting to give the students some choice of school placements and yet reserve the final decisions for the staff. What happened in the process was that all thirty-six rallied together when the staff was not present, worked out a process of their own that entailed all the necessary compromises, and presented the staff with a completed set-up. As it turned out, the school groups could probably have not been formed better. And as a process in decision-making, the Project staff could not have planned a better way for a group to experience a sense of community, especially so early in the year. Yet, had the staff intentionally given the students this freedom, the process would probably have failed, perhaps ending with petty arguments and domination by a few. They *took* the freedom, and as Saul Alinsky would have pointed out, that is why it worked so genuinely and productively.

The year was one in which the give and take of freedom and authority was in continuous struggle. Although other interesting episodes took place, the staff never again experienced such a meaningful happening as that spontaneous process of school placements. Often when staff members attempted to allow students freedom of decision-making as a total group, it fell flat. Other times, some of the students attempted to take the authority away from the staff, and the process fell short of any consequential activity. In these situations, either their numbers were too small and inadequate support could not be rallied, or the staff communicated ambivalence about their freedom by not being willing to negotiate or by being split among themselves.

In looking back, it seemed that the more important the smaller support and school groups became for the students, the less chance there was for a sense of community operating among the total group. The process described earlier that concluded by the students forming their own school groups placed those together who felt most comfortable with one another. The results generally were cohesive small groups. The individuality of the smaller groups was also enhanced by the fact that when choosing a school placement the students were also choosing one of the staff members as a supervisor, and each of them had his or her own personality and style. Small group pride and distinctiveness seemed to be gained for the price of a larger group cohesiveness. In any case, the community meetings, with all members present, seemed to lose its zest and potential for group action the more the year proceeded. There was probably another important reason for this. The more the students were in their school placements and the more they took on teaching responsibility, the less important project members outside of their own school became. It seemed that their self-interests were increasingly rooted to their support groups and their supervisor. Indeed, it was probably the relationships between students and their cooperating teachers that became the prime importance for most. The supervisor's push to the school, which was to offer the students as much realistic experience as possible, seemed to have the corresponding pull away from the university and the relationships that had been built up during the fall.

Although the tension between the practical isolated life of the school and the reflective and community life of the university was not new for staff members, it was new for the students. Project students were very much concerned about surviving in a shrinking job market. Since success in student teaching was largely a day-to-day classroom affair, theoretical and philosophical concerns lost out to the ever present question of what to do on Monday morning. The staff had wanted to integrate theory and practice as synergistically as possible. What was experienced for the most part was that the more the students were given day-to day responsibilities of teaching in difficult urban settings, the more they were vulnerable to similar consequences of school routine and responsibilities that teachers face.

Gearing a teacher education program to the reality of urban teaching and then fighting to find ways to pull students out of that reality so that their vision can be more comprehensive was a constant problem for the Project FollowThrough staff. It was similar to the kind of dilemma that was faced in the attempt to offer students freedom while at the same time having definite goals in mind for their program. And these were similar to the problem of emphasizing individualized instruction and small group work on the one hand, while at the same time trying to build a total sense of community among a large group. Perhaps what was learned from all of this was that many of the goals of the program were inherently in conflict with one another and that the more progress that was being made in one area, the more the staff was having to give up in another. It was either that or giving up some of the goals. The real question seems to be not whether *universities* can—or cannot—prepare teachers. Instead, it is whether the university can possibly expect—or be expected—to do the job alone. It is unlikely that we

can continue to hide teacher education programs in the university and expect our students to be in a position to cope in any real way with the complex issues which confront today's schools. What is needed is a more broadly based program in teacher education, in the university, in the schools and in the community.

Future Directions

Project FollowThrough has attempted to broaden the existing base of teacher education by involving students in a sustained period of field experiences, by relating field experiences to directed learning experiences, and by promoting close interaction among students and between students and staff. These emphases will continue as the Project begins its second year, but the experiences of students and staff have suggested additional goals as well.

One area to be explored concerns the possibility of a greater degree of direct involvement by cooperating teachers and other school personnel. Such involvement could come about through the cooperative planning of a specific program of preparation by the teachers of a school, the staff supervisor, and the students assigned to that school. Many opportunities would also exist for holding a series of inservice programs for the student teachers and all members of a school's faculty, with the programs planned and conducted by a team of cooperating teachers and FollowThrough staff members. The university seminars, held in response to student needs and as part of the learning packets, could be conducted in the individual schools and attended by interested school personnel as well as by the student teachers of that building. Or perhaps time should have been saved at the end of the year explicitly for the kind of questioning perspectives that were left out of the semester of student teaching.

An additional area of emphasis should be directed to increasing the degree of student-initiated learning. To this end students could be expected to be primarily responsible for designing special interest learning packets, arranging meetings with resource consultants and speakers, and organizing special interest seminars or mini-courses.

Conclusion

In planning and implementing Project FollowThrough, the staff has attempted to broaden the program's base in several ways. A survey of recent graduates by the University's School of Education was in accord with the results of similar surveys taken across the nation: the great majority of graduates had found the student teaching experience to be of greatest value in their professional preparation. Thus, a primary goal of Project FollowThrough was to broaden its base through a major emphasis on field experience throughout one academic year of the students' preparation. Such field

experiences being developed and supervised by staff members from various areas of specialization.

The emphasis on sustained field experience throughout two semesters proved to be of particular value in allowing FollowThrough students to personalize their programs. By encou[illegible]ring problems in the field, students had the opportunity to analyze their own strengths and weaknesses in their development as teachers. They could then select and work through appropriate learning packets based on their [illegible]rceived needs or interests. In addition, the fact that the field experie[illegible]es occurred relatively early in their professional preparation allowed [illegible]dents to plan a program for their final academic year which would refl[illegible] their continuing needs.

Project Foll[illegible] Through has [illegible]iated and begun to evaluate a curriculum framework for the prepara[illegible] of elementary school teachers. In the process, the Project has developed methods for the operation of a new teacher education program in the School of Education. The pilot project has produced evaluation tools and techniques for the measurement of the relevance of the course of studies to the needs of the teaching profession and of the effectiveness of interdepartmental teaming and a year long field experience to teacher training.

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COLLABORATION IN A CBTE PROGRAM

As the concept of competency-based teacher education (CBTE) spreads throughout the country, it becomes increasingly evident that there is a need for coordination of effort. Coordination should include sharing of materials and program designs, and discussion of common problems resulting in cooperative efforts directed at resolving these problems. A particularly important function of coordination activities is to meet the needs of those who are interested in developing new competency-based programs. Examples of competencies, training materials, and other program elements would be of value. In addition, models of programs and developmental procedures, including techniques for collaboration, would significantly reduce start-up time and problems, and reduce duplication of effort for new program development.

The purpose of this paper is to describe one state's (Michigan's) approach to that aspect of the coordination effort which relates to facilitating development of new competency-based teacher education programs. Although a more comprehensive program of coordination is underway, the new program development aspect will be emphasized here. This part of the total state's efforts is exemplified by the Michigan COAST Project, a collaborative effort to develop a model CBTE program for secondary teacher preparation.

Background

Perhaps the most significant policy action taken by the State of Michigan to initiate CBTE activities was in 1971 when the Michigan State Board of Education adopted, in principle, actions to explore competency-based teacher education. This was in response to a position paper by the Department of Education staff. Although this established a positive atmosphere at the state level, it did not imply a premature commitment. The concept was intuitively appealing and warranted exploration and study.

It is important to note that interest in competency-based teacher education in Michigan was not limited to State agencies even during these early years of CBTE. A report submitted to the State Board of Education indicated that at least seven programs at five institutions were known to be in operation by 1972.

Consistent with the position to explore competency-based teacher education, the State Board took a series of actions providing funds for program development. As early as 1971, and prior to their policy statement, the State Board approved federal funds for a systems approach to vocational education at Wayne State University. In 1972, funds from the Education Professions Development Act (EPDA) Part B-2, were awarded to Michigan State University and Oakland University for development of programs specifically referred to as competency-based. This was the first action taken following the policy statement.

These initial programs provided the exploratory base required for further action. On the basis of information provided by these preliminary studies and reports of a variety of programs across the country, staff of the Department of Education recommended the State Board award additional grants. The State Board requested funds and the Legislature responded by appropriating $100,000 for this purpose for 1974.

Current Position

The State Department staff currently supports the position of state facilitation of CBTE program development, instead of mandating CBTE. It is within this context that the State program is being developed. A necessary first step was to determine what was needed to develop CBTE and how the grants program could be utilized to respond to these needs. Assumptions of the grants program were that institutional staff would need staff support and time for program development which generated the need for accessibility of materials, guidance, and program models.

In 1974 grants of $25,000 each were awarded to four institutions for CBTE design (University of Michigan, Central Michigan University, and a joint Wayne State University-Ferris State College project). The purpose of the grants program was to facilitate development of CBTE in the State by meeting several objectives. Objectives included model programs designed in such a way that they could be replicated, adapted, or adopted by any or all of Michigan's thirty teacher preparation institutions. Collaboration was required since eligible contractors were defined as consisting of one teacher education institution and one or more cooperating elementary and secondary schools which agreed to jointly and cooperatively develop the teacher competencies

Grants Program Objectives

The specific objectives of this grants program may be classified under four headings: structure, process, content, and evaluation. The structure objective required model organizational patterns for CBTE programs. In some cases this involved re-structuring a single course and in others it involved a total professional sequence. These models are intended to provide other institutions with examples of possible structures.

The process objective is intended to provide models of procedures that were used to develop programs and write competencies. The emphasis here was to field-test procedures and identify problems of collaboration in program development. These processes should again be replicable or adaptable throughout the State. In view of the fact that most institutions wish to develop their own programs and involve local districts, this may be the most important objective.

In terms of content, the grants program hopes to develop several products which will be made available to other interested-institutions. The first of these will be three sets of competencies developed by the four programs, two sets will be in elementary education with emphasis on science education, and a third set will focus on competencies of all secondary teachers and will be jointly developed by two grant programs. These competencies will then be available for any institution to adapt or adopt.

A second product will be a set of modules related to the competencies developed. These also will be made available to the State and will put the competencies into a training context. A third product will be any additional training techniques or materials which lead to achievement of the competencies. Some of these will be support materials for the specific modules.

An additional product will be assessment techniques related to specific competencies. An assessment model of the professional educational portion of the teacher education program, i.e. assessment of effectiveness of graduates, will also be provided. One of the critical needs in designing competency-based teacher education programs is development of appropriate assessment techniques. This product will hopefully provide significant assistance to other program developers.

There will be two other product outcomes of the grants program. The institutions receiving grants have acquired a variety of materials from across the country, including program descriptions and development manuals, which could be listed and made accessbile to others in the State. Another type of resource is the expertise of those individuals currently developing the CBTE grants programs. This will be a valuable source for consultation on future projects and to other institutions in the State.

The fourth area which is an objective of the grants program is evaluation data. One item of interest would be estimated costs of various program elements. Total cost on a per unit basis, such as per module or per course conversion, as well as distribution of costs in terms of resources, staff time, etc., would be of interest. Reactions by various groups involved (teachers, students, faculty) as well as evaluation of specific elements should also be collected and disseminated.

An evaluation of the effectiveness of the program would be conducted, both in terms of whether or not it could be operationalized as proposed, and in terms of its effectivensss as a training program. It is doubtful, however, that any real comparative analysis can be made on a short term project. The program could, however, provide a basis for longitudinal and future comparative studies.

A final type of evaluative information would be a set of recommendations concerning the viability of CBTE programs and identification of possible future directions to take. This might include a discussion of elements of CBTE that are and are not worth pursuing. Finally, it would be of value to identify specific areas which need further development but appear promising or essential.

This total approach describes a cooperative effort which required collaboration among the State Department of Education, four teacher education institutions, and a number of public schools. The State Department, for example, holds periodic meetings with all the managers of the four grants in order to share ideas and discuss problems. In the following pages the specific activities of two institutions involved in the program will be described.

Michigan COAST Project

The primary thrust of the Michigan COAST Project was to develop a model for the preparation of secondary teachers. The model was to consist of three major facets and to be designed in such a manner that it could be applied in a "typical" secondary teacher education program. Several basic assumptions were made in designing the model:

1. It was to be competency-based.
2. It was to be concerned with those competencies taught only in the professional education sequence that are common to all secondary teachers.
3. It was to be a total program, i.e. encompass the total professional sequence[1]—not just a single course, or a series of courses.
4. It was to be a collaborative effort.
5. It was to have the classroom teacher as the primary decision maker.
6. It was to be designed and documented in a manner that would insure its replicability.

[1]A total secondary CBTE program would have competencies identified for all portions of a degree/certificate General education, teaching major and minor and professional education courses

Three Facets of the Model

The request for proposal (RFP) under the State grants program called for a model that provided for: 1) teacher competency definitions,[2] 2) training or preparation materials, and 3) assessment procedures.

The contractors had the responsibility to design a process for determining competencies *of all secondary teachers* (COAST). This process, of course, resulted in a list of common secondary professional competencies.[3]

A second responsibility was to design, or adapt, instructional materials to enable a prospective teacher to demonstrate selected competencies. And, third, to design an assessment model to determine if the student had achieved a stated competency.

While the contractors had the responsibility to field test selected instructional materials and portions of the assessment model, it was not a demonstration project. Rather, it was a design project.

Wayne State University and Ferris State College agreed that each would assume major responsibility for one of the sub-components and that the third would be a joint effort. The responsibilities were:

1. Competency Design Model—Wayne State University
2. Assessment Design Model—Ferris State College
3. Instructional Materials—WSU and FSC

Both institutions agreed that if a model were to be replicable and feasible to implement it had to be congruent with existing patterns of teacher education. The intent, then, was to develop a model that would not be "shelved," but would be implemented.

A Pattern of Secondary Teacher Education

Most secondary teacher education courses fit into a pattern that consists of several key elements. These elements usually are:

1. Units of instruction, commonly called "Introduction to Education."
2. Units of instruction called "Foundations of Education" (psychology, sociology, guidance, philosophy, etc.).
3. Units of instruction called general methods or special methods.
4. Units of experiences called student teaching, interning, etc.

Consequently, the participants had this "Model" in mind, since most of them had a similar set of experiences in their certification program. Thus, the competencies that evolved from the participants' input have application to all of those basic areas of professional education.

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[2]A competency is a knowledge, skill or judgment which the student will demonstrate at a pre-determined proficiency level before initial and/or continuing certification. This definition has been cited in Two VAE System Models (Detroit, Michigan Vocational and Applied Arts Education) 1972, p 2.

[3]See Appendix A for the list of competencies common to all secondary teachers which was generated by project participants.

Competency-Based Programs

Competency-based teacher education (CBTE) is an approach to instructional program design which placed primary emphasis on the following operations:

1. The products of a program and the steps toward achievement of those products and specified in advance of instruction in behavioral terminology. These products and instructional steps are the competencies and the performance objectives.
2. Students must demonstrate specific behaviors before they can progress to the next phase of instruction.
3. The competencies and the performance objectives provide the basis for assessment and evaluation.
4. Instructional materials are designed which allow for efficient learning, self-pacing, and the use of alternative delivery systems.
5. Programs are developed in cooperation with public school personnel.
6. School-based experiences are incorporated into the teacher education programs.

The basic problem to which this project was directed is how to design a model framework for a teacher preparation program appropriate for the training of secondary teachers in all disciplines which incorporate these concepts.

Competencies of all Secondary Teachers

In issuing the RFP for this project the Michigan State Department of Education assumed there were some competencies common to all secondary disciplines as well as some that would be unique to specific disciplines.

> Secondary teacher competency definitions are . . . extended to include competencies common to all secondary teachers, as well as a series of specialized competency areas relating to certain programs for secondary level students. Support for the concept that there are common secondary level competencies and specialized competencies is derived from the conclusion of the Wayne State vocational teacher preparation program staff that about 90 per cent of the vocational competencies that they have defined are common to all vocational teachers. An illustration of specialized teacher competencies might be those required of the teacher of physics or chemistry, an area that goes well beyond the pupil performance objective definition in science, yet is an important pupil needs area.[4]

Preliminary analysis of the input from our participants indicate high agreement on approximately 80 common secondary competencies. Many of these competencies were similar to those found in:

1. The Florida Catalog of Competencies

[4] "Request for Proposal for the Development of Competency Based Elementary or Secondary Teacher Preparation Program Models." Michigan Department of Education, October, 1973

2. "Generic Secondary Competencies" from the University of Houston
3. Wayne State University Pre-Certification Competencies for Vocational and Applied Arts Education
4. Ferris State College Secondary List of Competencies

It also appears from preliminary data that few, if any, *specialized* professional education competencies will be identified. Each participant was asked to generate one or more professional education competencies that he or she believed were unique to a given discipline. These "specialized competencies" were subjected to panel and total group analysis (and voting). In every instance it was determined that the so called "specialized professional education" competencies (that of an English teacher, for example) were also used by other disciplines.

Collaboration

Two important aspects of the Michigan COAST Project are collaboration and replicability of the model. Collaboration involves some basic decisions which often create major role changes for teacher educators and classroom teachers involved. Of primary importance are: Who is going to be involved in the decision-making? And, Who is going to have the controlling voice? Typically, academic qualifications have warranted control, and the college professors were most influential. But collaboration implied that this position was altered. The extent of change was dependent upon some underlying principles.

The principles affecting the collaboration procedures of the Michigan COAST Project were:

1. Project participants were selected with approximately a 3 to 1 majority to the classroom teacher representatives.
2. Collaboration was established on as broad a scope as possible.
3. Project participants controlled all decision-making.

First, the participant selection process was broad, accounting for widespread collaboration with heavy weighting in favor of the classroom teacher. Collaboration usually implied joint curriculum development efforts between the university and the classroom teachers and/or school administrators. The Michigan COAST Project involved a more complex collaboration scheme super-imposed on the basic teacher-teacher educator design.

There were five types of collaboration: 1) Inter-university, 2) Interdisciplinary, 3) University—LEA (Local Educational Agency), 4) LEA—LEA, and 5) University—State Department of Education cooperation. The project participants were first clustered generally around two teacher training institutions—Wayne State University in Detroit, and Ferris State College in Big Rapids. Wayne State is a large urban university with approximately 33,000 students, 6,000 in the College of Education. It is the tenth largest university in the United States, with the fifth largest graduate school. Ferris State is in a community of 10,000 people in a rural central-lower Michigan district. The total college has 9,000 students, with approximately 500 in

education. The teacher educator participants are from the faculties of these two schools. Thus, there is a cooperation between two institutions with vastly different characteristics.

All participants are involved in secondary education. They represent sixteen disciplines typically taught in junior and/or senior high schools. Prior to selection a grid was constructed which attempted to cover all disciplines and proportionally represent all LEA's and both teacher training institutions. Thus, professors and classroom teachers were selected with a predetermined ratio in mind.

Classroom teachers not only interacted with the university personnel, but they also interacted with teachers from a total of five school districts. Eighty representative teachers were selected from the Detroit Public Schools, the Grosse Pointe Public Schools (a suburb of Detroit), the Capital Area Career Center (a career education school near Lansing, Michigan), the Big Rapids Public Schools, and the Reed City Public Schools. (Reed City is a rural community 50 miles north of Big Rapids.) Figure 1 below shows the breakdown of classroom teachers representatives. Finally, the college project directors were working directly with the Supervisor of Teacher Preparation of the Michigan State Department of Education. This communication facilitated state coordination of CBTE program development activities.

With this cross-section of educators involved in the project, and the 3:1 ratio of classroom teachers the program development decisions were clearly made on a broad base with strong field support. The actual decision-making process, however, was still carefully considered. A majority vote would carry a motion, and all decisions were made on the basis of a written ballot which followed a general discussion. While balloting was perhaps not always necessary, the process did create a credibility which university communities have not always enjoyed with classroom teachers.

Replicability

While all of these procedures were designed to insure a truly collaborative effort, they also aided in another major goal of the Michigan COAST Project—the design of a program model which could be replicated in any of the 30 teacher training institutions in the State of Michigan. To develop a case for replicability, the following principles were adhered to:

1. Participants should be selected from diverse geographical areas, from diverse disciplines, and diverse types of communities.
2. Participants should be viewed as representative of large groups of teachers and teacher educators who might well be implementing such a program.
3. Efforts should be taken to confirm the program's competencies by other groups throughout the State.
4. Records should be strictly kept of all events.

Much of the initial foundation for replicability stems from the diversity of the collaborators. Detroit is a large, urban, area covering the entire gamut of

Figure 1
A Summary of Michigan
COAST Project Participants

	Big Rapids	Reed City	Capital Area Career Center	Detroit	Grosse Pointe	Ferris State College	Wayne State	Total
Art	1			1	1		1	4
Biology	1			2	1			4
Business		1	1	1		1	2	6
Chemistry				1				1
Distributive Educ.		1		1		1		3
English	2	1	1	2			1	7
Foreign Lang. French, Span.	1			2	1			4
Gen. Sci.	1			2	1	1	1	6
Home Econ.		1		2			1	4
Ind. Arts	1	1		1			1	4
Math.	1	1	1	2	2	2		9
Music				2			1	3
Phy. Educ.	1	1		1			1	4
Physics				1				1
Soc. Studies Hist., Govt.	1	1		2	2		5	11
Speech	1			1				2
Voc. Tech. (Auto Mech., Machine Tool)		1	3	2		1		7
TOTAL	11	9	6	26	8	6	14	80

economic levels, ethnic and racial groups, and social environments. Grosse Pointe is a white, generally middle and upper class suburb. The Capital Area Career Center has a student population from throughout Ingham County with the exception of Lansing.[5] Big Rapids is a small, western-Michigan college town with strong rural influences, and Reed City can be classified as a rural non-farm community. Thus, students may be urban, rural, suburban, small town.

However, another major task of the project which promoted replicability was the validation of the competencies identified by the project participants. The competency validation study consisted of a statewide survey which obtained the ratings of each competency by secondary teacher educators, classroom teachers in all represented disciplines, parents, high school students, college pre-certification students, and principals. Over 3,000 instruments were mailed to the geographical areas surrounding the thirty teacher training institutions in Michigan. These responses were analyzed in terms of geographical area, type of community, disciplines, knowledge of teaching and knowledge of CBTE. The results of this survey then became input for the project participants to revise the competency list so that it would be more acceptable to the teachers of Michigan.

While there are specific products which were derived from this project (a list of competencies, sample test items, a set of instructional modules, and supporting audio-visual materials), the most important results were the field-tested procedures which a group can use to develop a CBTE program. *It's the replicability of procedures rather than the adoption of specific products which can be most valuable.* Thus, documentation manuals were produced which detailed all steps followed in the cooperative development of the CBTE model program. This manual became a "how to" book and was distributed to each Michigan teacher training institution. The competencies and instructional materials[6] were furnished with the documentation manuals. Video tapes which describe the project were also made available and can be utilized by others who want to follow the same procedure.

The manual itself included the actual procedures to be followed, advantages and disadvantages of the procedures, the products which emerged as a result of following each series of steps, and a list of pertinent available resources.

There are some general observations which can be made as a result of this experience. First, there does not appear to be as many differences among groups of people as one might think in terms of priorities for teachers and students, perceived problems, and similar solutions. Rural-urban, physics-physical education, in-state- out-state, —none of these factors seem to create general splits in opinion. And in a similar vein, these project participants have identified competencies very similar to other groups with

[5] The Capital Area Career Center is also one of the few schools which is involved in the training of its teachers so they can better meet their own unique teaching-learning situation

[6] In the cases where media was produced, only media descriptions have been provided Although actual materials were produced at cost for interested Michigan institutions

similar tasks. (The standard cry from some quarters is that we should not move ahead with CBTE program development until we know what *the* competencies are. Our data does not support this. It could be that perhaps the teachers do know to a great extent what *the* competencies are which they need.)

Second, the procedures one selects in the planning of a collaborative CBTE venture can determine the smoothness of the sailing. Arguments, and the topics of arguments can be predicted; confusion points can be predicted; issues can be predicted on which decisions will have to be made. The Michigan COAST Project is but one of many projects throughout the country which are not only designing CBTE programs, but are also discovering what the best approaches are when working with large groups of people in curriculum development.

Finally, the traditional isolation of teachers in the various secondary disciplines may not be warranted. While specializations are still vital, and content competencies can not be ignored, there is great room for common instruction and learning with secondary education students grouped together. Perhaps the individualized nature of the module can provide some of the discipline examples, and mixed groups can provide some of the interdisciplinary strengths which so many schools are trying to build through special programs.

Summary

The process discussed in the preceding pages provides a description of one state's approach to initiation of CBTE program development with emphasis on collaboration. The efforts by the Wayne State University-Ferris State College project provide specific examples of how the overall strategy has been operationalized by one project. Hopefully, the entire cooperative effort will produce a synergistic effect and lead to future statewide planning and coordination. Finally, it is proposed that this state approach is replicable or adaptable by other states.

Appendix A

Institute for the Research and
Development of Competency-Based
Teacher Education Program
Wayne State University
College of Education
Division of Teacher Education

Michigan COAST Project

Pre-Certification Competencies
of Secondary Teachers

Plan

The teacher will:

1. Identify departmental program goals. (25)*
2. Determine students' needs and goals for successful completion of a course of study. (2)
3. Select content appropriate for level of class. (9)
4. Analyze the learning task (skills, operations, and procedures) and put them in sequence. (22)
5. Involve students in classroom planning. (36)
6. Formulate performance objectives for lessons, units, and courses. (10)
7. Develop instructional units. (17)
8. Construct a lesson plan. (32)
9. Develop time allotments for lessons based upon data. (40)
10. Select strategies, materials, supplies, equipment, and media which provide suitable alternatives for students. (1)
11. Accommodate individual differences among students. (1)

Instruct

The teacher will:

12. Provide students program goals and performance objectives b instruction. (30)
13. Use a variety of techniques to achieve instructional objectives for each student. (7)
14. Communicate effectively. (41)
15. Be enthusiastic, interesting, and motivating. (15)

*Competency ranking priority of project participants

16. Demonstrate knowledge of the subject matter. (5)
17. Be flexible in following and/or revising original plans. (18)
18. Encourage participation and involvement of all students. (11)
19. Adjust to students' individual differences, attitudes, needs and interests. (4)
20. Implement the problem-solving process. (52)
21. Aid students in the development of values and decision-making. (19)
22. Operate machines and equipment necessary to implement use of materials. (45)

Guide

The teacher will:
23. Help students develop confidence and feel good about themselves as human beings. (14)
24. Encourage students to have mutual appreciation and respect for fellow students. (27)
25. Recognize learning problems and counsel students with respect to them. (55)
26. Assist students with occupational problems. (42)
27. Use available services to deal with behavioral and personal problems. (31)

Evaluate

The teacher will:
28. Design and administer needs assessment instruments. (26)
29. Establish criteria for evaluation of plans for lessons, units, and courses. (40)
30. Evaluate the effect of the teaching strategies in achieving the objectives. (29)
31. Use a variety of techniques to assess a student's learning. (44)
32. Develop a variety of test items that are valid and reliable. (49)
33. Evaluate student progress and inform each student of his/her progress. (8)
34. Include students in evaluation. (54)
35. Report pupil progress in a variety of forms. (38)
36. Measure long-term effectiveness of a program. (29)

Manage

The teacher will:
37. Handle classroom routines efficiently. (48)
38. Provide structure, organization, and explanation for each learning activity. (21)

39. Organize supplies, equipment, and other physical resources within the instructional area and improvise if necessary. (37)

40. Keep organized records. (39)

41. Develop, accumulate, organize, and revise instructional materials as needed. (24)

Supervision

The teacher will:

42. Manage one's own time, energy, and intellect. (46)

43. Develop a learning environment which encourages both responsible social interaction and personal self-concept. (12)

Public and Human Relations

The teacher will:

44. Involve parents in the learning process using regular procedures. (51)

45. Interpret current educational trends to the community. (53)

46. Practice professional standards in attire and appearance. (34)

47. Respect and support the rights of students and staff. (6)

48. Respond with sensitivity to the needs and feeling of others. (3)

49. Accept and appreciate differences between and within ethnic groups. (35)

50. Cooperate with staff. (43)

Professional Role

The teacher will:

51. Stay informed of current trends and developments in education, particularly in the special field. (16)

52. Participate in professional meetings and organizations. (28)

53. Treat all students fairly. (13)

54. Treat each student as if he/she can learn. (23)

55 Meet ethical standards. (20)

56. Demonstrate knowledge and understanding of differences in maturation. (47)

57. Participate in formulating and supporting reasonable school goals, policies, and procedures. (33)

58 Demonstrate a knowledge of teacher contracts and the laws regarding teacher responsibilities. (50)