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ABSTRACT

This document presents the final report on the redesign and restructuring of the teacher education program at the University of Wisconsin at Milwaukee. The project was begun in October 1985, and at about the same time, a task force, charged with examining the then current program, issued a report which referred to a research base for teacher education and recommended integrating structured field experiences in the schools with professional education courses and creating six credits of professional education devoted to general methods courses in which research-based teaching and classroom management skills would be taught. The project was designed around these key recommendations. The content goal of the project was to: (1) use research about effective teaching and effective classroom management as bases for improved training in pedagogy, specifically in secondary methods courses and related professional courses; and (2) link field experiences and student teaching more closely to the classroom-based pedagogical training. The specific instructional skills focused on were drawn from a synthesis of elements of direct instruction, active teaching, mastery teaching and mastery learning. One facet of the project was a series of training workshops for cooperating teachers dealing with research-based instructional practice, classroom management, and coaching of prospective teachers. An evaluation of the project is included as well as a practice profile. Appendices include the 1985 task force report, descriptions of the training workshops, and forms for recording knowledge gained through the program. (JD)

Final Report

for

Incorporating Research Based Teaching Skills into a Field Based Secondary Teacher Education Program

Contract No. 400-85-1046
University of Wisconsin-Milwaukee
School of Education

September 29, 1988

Project Portrayal

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I. Project Description and Evolution

The project at the University of Wisconsin-Milwaukee, "Incorporating Research Based Teaching Skills into a Field Based Secondary Teacher Education Program", had its start at the same time as the School of Education was embarking on a redesign and restructuring of its teacher education program. Indeed, the proposal for this project was written at the same time as the School's Task Force on Teacher Education was completing its work. The project began on October 1, 1985. The Task Force, after a year-long effort, issued its report (see Appendix A) on October 29, 1985. The report referred to a research base for teacher education and went on to make ten recommendations, including integrating structured field experiences in the schools with professional education courses and creating six credits of professional education devoted to general methods courses in which research-based teaching and classroom management skills would be taught. This project was designed around these key recommendations of the Task Force report.

Most broadly stated, the project had two main goals--one related to professional content in the UWM Teacher education program, the other related to a complex strand of program development activity in the UWM teacher education program. The tasks and activities of the project were

conceived of as providing an opportunity to pilot curricular changes and as an impetus for program development. We planned to use the project to develop the syllabi for the new professional education courses, especially those dealing with teaching methods and management. We anticipated that the deadlines and requirements of the project would be helpful in bringing the Task Force's recommendations to fruition.

The content goal of the project, then, had two main subgoals. We sought (1) to use research about effective instruction and effective classroom management as bases for improved training in pedagogy, specifically in our secondary methods courses and related professional courses; and (2) to link clinical experiences (field experiences and student teaching) more explicitly and closely to the classroom-based pedagogical training. Neither of these subgoals is trivial. The first presupposes that instruction 'as opposed, say, to curriculum, or to cultural influences that may affect learning) is a a wise place to begin in attempting to reform a teacher education program. Many teachers claim that their education courses were too theoretical and a number of studies have found that prospective teachers are not well prepared in skills of classroom management and in instructional strategies. Indeed, many teacher education programs shy away from the word "training" and thus avoid practices that would ensure the incorporation of teaching skills into the repertoire of new teachers.

The specific instructional skills we focused on were drawn from a synthesis of elements of direct instruction, active teaching, mastery teaching and mastery learning. In summary, these skills relate to planning, establishing readiness/motivation, presenting, practicing,

checking and reviewing. They embody what Brophy (1986) calls the "traditional group-based instruction/recitation/seatwork approach". He advocates

> training teachers in this method--not as the only or always the best way to teach, but as a starter set of fundamental skills or a base to work from. I believe that preservice teachers not only should be informed about this method but should receive systematic training in how to implement it and opportunities to practice what they are learning and receive feedback until they reach mastery criteria for implementing the method under naturalistic conditions. Only then, when these teachers had established a firm base to work from, would I introduce methods that are conceptually and managerially more complex.

The management skills include those of getting started, utilizing instruction to maintain students on task, dealing with minor disruptions and dealing with more severe disruptions. The entire set is summarized in Figure 1--a list that we have used to guide some of our project assessment activities.

The second content subgoal looks beyond quantitative or administrative dimensions of clinical experience (e.g., increases in the number of required hours, congruence of the university and cooperating school calendars) to instructional dimensions; it presupposes that clinical experiences should carry forward a line of professional training, with assistance provided to the preservice student through coordinated effort by university and cooperating school staff members. Like all teacher training programs, the program at UWM included a semester of student teaching preceded by other field experiences. Like most other programs, ours suffered from a number of the problems identified by Griffin (1983):

> --cooperating teachers and university supervisors do not act from a set of carefully articulated performance standards for professional practice;

	Almost Always	Frequently	Seldom	Never
1. Establishes Readiness	3	2	1	0

Takes deliberate steps early in the class period to prepare students for what is to be taught. E.g., reviews prior learning, provides concise overview of new objectives and activities, gives reasons for study of the new objectives. Opposite behavior: Begins to teach immediately after taking attendance, signing passes, etc.

2. Presents New Material	3	2	1	0

Presents information, explanation, or demonstration which students will use subsequently in new tasks. The presentation is organized and sequenced so that students begin from an easy start. Opposite behavior: Assigning new tasks or asking new questions with no teacher presentation related to those tasks or questions.

3. Provides Practice	3	2	1	0

Engages students in activities in which they use (interpret, apply, modify, etc.) the content of skills previously presented. Sequences the practice activities to provide initial high success rates. Helps students while they practice. Opposite behavior: Moves directly from start of lesson to assignment of a task which students must perform independently; or moves from start of lesson to a different subject.

4. Acts on Feedback	3	2	1	0

Attends to students' responses during presentation and practice. Provides additional information and practice as indicated by students' responses. Opposite behavior: Moves forward without regard for students' responses.

5. Prepares for Instruction	3	2	1	0

Attends to room arrangements, teaching plans, and materials prior to each lesson. States behavior expectations and procedures to be followed. Opposite behavior: Improvises arrangements and activities; assumes that students should know what to do and how to do it.

6. Maintains Focus	3	2	1	0

Handles procedural obligations (attendance, etc.) through routines so that academic focus is not blurred. Maintains teaching pace and momentum, handling minor disturbances without interrupting the lesson. Opposite behavior: Allows procedural matters and other non-academic distractions to dominate the class.

7. Models Procedural Consistency	3	2	1	0

Refers to previously stated procedures in interpreting and responding to classroom events. Communicates precise information to students--acknowledging proper conduct, praising academic effort, restating procedures as necessary. Follows building procedures in handling serious misbehavior. Opposite Behavior: Interprets and responds to classroom events idiosyncratically, without regard for stated academic goals or class or building procedures.

Figure 1: Summary of Teaching and Management Skills

--student teachers, cooperating teachers and university supervisors did not share a common understanding of policies, expectations, purposes and desirable practices;

--student teaching was not integrated substantially or ideologically into the rest of the professional program.

The program development goal marked an area of overlap between the activities of the project and a larger set of faculty activities growing out of the more general effort at UWM to restructure and improve preservice teacher education. Thus, while the larger effort encompassed all the teacher education programs (early childhood, elementary, secondary and special education) this project focused only on the secondary teacher education program. This was done for several reasons: first, there is a dramatic need for improved teaching skills in secondary schools; second, our secondary program is smaller and more simply structured than the other programs; third, there is substantial faculty overlap with the elementary program thus extending the reach of the pilot effort.

The project's core staff included faculty who were members of the Task Force and who played key roles in subsequent change efforts in the School's teacher education program. Co-principal investigator William Kritek chaired the Task Force and served ex-officio on the committees that were charged with follow-through. Project Associate Philip Smith was a member of the Task Force and chaired the reorganization committee that had the task of modifying the School's organizational structure to accommodate the recommendations of the Task Force. Project Associate Mark Schug also was a member of the Task Force and chaired the implementation committee designed to start on curricular change. Eventually, when the Center for Teacher Education was created and given responsibility for all teacher education programs in the School of Education (in response to a Task Force recommendation), Professor Schug became its first director. The other two

project associates were Richard Western who served on the Task Force and on one of the follow-through committees and John Zahorik who was added to the team for his knowledge of the research on instruction.

Project activity evolved in five (overlapping) phases:

(1) Early on, project associates convened an advisory group composed of educators from metropolitan area schools, plus certain UWM faculty members from departments in the College of Letters and Science. The advisory group included six teachers from the Milwaukee Public Schools and two teachers from each of three other districts in the metropolitan area. University faculty from departments that help prepare secondary teachers of English, mathematics, history, science and foreign language also participated in advisory group meetings. Over the course of the three years of the project, project associates and the advisory group formulated their general approach to the main goals listed above, obtained advice from outside authorities (including Walter Doyle, Barak Rosenshine, Bruce Joyce and Beverly Showers) and determined the content of the workshops for cooperating teachers, the methods courses for prospective teachers and the field-based components of an early field experience course and two foundation courses.

It was at the beginning of the project, also, that the staff and advisory group developed a questionnaire that was sent to all cooperating teachers (those teachers who work with student teachers). This questionnaire resulted in a confirmation of the need for additional training of UWM student teachers in teaching and classroom management skills. Questionnaire responses also documented a substantial reservoir of interest in the intended renewal of the UWM teacher education program and a willingness to contribute to the improved training of teachers.

(2) As a result of deliberations with the advisory group, reviews of scholarship, interaction with "experts", and reviews of needs assessment results, project associates designed and carried out a series of training workshops for cooperating teachers. The workshops dealt with research-based instructional practice, research-based classroom management, and research-based coaching of prospective teachers. (Descriptions of these workshops are included in Appendix B.) One purpose of the workshops was to teach cooperating teachers about the knowledge base for a set of instructional, management, and coaching practices; a second was to help cooperating teachers develop some skill in the use of those practices and a third was to seek the cooperating teachers' commitment to use these practices in their work with UWM student teachers. Project associates conducted a number of these workshops, from 1986 until the present. Thirty-four teachers completed the set of three workshops; an additional number completed one or two. The instruction and management workshops included components that addressed the use of the research base in coaching of prospective teachers. The coaching workshop addressed this topic more extensively along with components dealing with recording classroom behavior, adult learning and development and communication skills.

(3) Taking into account the responses of the cooperating teachers to the workshops described above as well as the advice of the advisory group, project associates planned and carried out certain steps to implement research-based pedagogical training in secondary subject methods courses and student teaching seminars. Methods courses and student teaching seminars were re-formulated extensively to incorporate modules on

instruction and management. Instructors used content associated with the project in monitoring preservice students' work in student teaching.

Despite the recommendations of the Task Force and the intent of the project plan, stand-alone general methods courses in instruction and management have not yet become a reality. We have had to rely on the modules instead--an alternative that falls substantially short of the desired six credits of coursework in pedagogy. While this has been a major disappointment and source of frustration for original Task Force members and for project staff, there is reason to be hopeful that the desired changes are soon to be accomplished. Indeed, the original intentions have never been repudiated or changed; it has been the implementation that has been much, much slower than expected. As of this writing, proposed syllabi have been accepted by the Center for Teacher Education; still to be accomplished are acceptance by the faculty and incorporation into students' programs of study.

(4) In 1987, the UWM School of Education and the Milwaukee Public Schools worked out an agreement to create four Professional Development Schools--schools where MPS and UWM faculty members would collaborate in focused teacher education activity. Neither the proposal for this project nor the Task Force report used the "professional development school" terminology although both documents cited the need for increased and improved clinical experiences for prospective teachers. Following the work of the Holmes Group and the Carnegie Commission, the advisory group addressed the topic of professional development schools at two meetings in the fall of 1986. At the second meeting, administrators from the four districts represented on the advisory group joined in the discussion with project staff and advisory group members. When the Center for Teacher

Education began operation in December, 1986, it picked up the professional development schools initiative. As part of its commitment to urban education, the Center decided to create the first such schools in cooperation with Milwaukee. Center Director Schug and Associate Dean Kritek, along with a third Center faculty member and one of the teachers on the advisory group represented UWM in the planning discussions with MPS.

The agreement between UWM and MPS envisioned, among other things, improved linkage between the preservice programs generally and the field-based components of those programs. In seeking ways to move toward the goal of improved linkage, the Center for Teacher Education invited the project staff to conduct its research-based teaching, management and coaching workshops at two of the Professional Development Schools: Fulton Middle School and Riverside University High School. Project staff conducted one set of the three workshops at each site and a third set during the current summer. The workshops for the Professional Development Schools' faculties extended the line of training for cooperating teachers (mentioned above) in a new institutional partnership.

(5) Project activity related to pedagogical training continues to influence preservice program revision now being carried out by the Center for Teacher Education. The Center has created one new course--an Introduction to Teaching--which has been substituted for a pre-education field experience and colloquium requirement. The new course introduces aspects of the knowledge base for instruction and management that has been at the core of project activity. And it links the study of teaching to a planned sequence of observations and other field activities to be carried out in Professional Development Schools where faculties have previously

worked with project associates on research based approaches to instruction and management. The Center also has moved to revise the Principles of Classroom Appraisal and Evaluation course and the Introduction to Learning and Development course to incorporate appropriate field experiences. Preliminary revisions of these courses were undertaken early in the project utilizing the suggestions of the advisory group. And, as noted above, the content component of the project's work served as the initial reference point for the development of the new courses on instruction and management.

This schematic account of five main phases omits certain incidental results of project activity to date. One of these has to do with the relation between the Office of the Dean and the UWM teacher education program. Through his work as Project Director, Associate Dean William Kritek has established a relationship of mutual academic interest between the School administration and the secondary education faculty. Another has to do with similar relationships that have begun to emerge as the School's Director of Research, Project Associate Philip Smith, several faculty in the Foundations department, and some doctoral students also have assisted with project activity. The preservice teacher education program touches now on the work of more faculty than it did before, partly as a result of project activity.

II. Major Issues, Strategies, and Collaborative Approaches

We anticipated three main issues to be central foci of the project. These issues are related to our twin goals regarding the content of the UWM teacher education program and the strand of program development activity.

One issue had to do with our premise that the particular research about instruction that we chose could be made to serve as a base for program reform in secondary education. The knowledge base that we drew upon in initiating our effort derived mainly from research carried out in elementary schools, and it entailed various formulations of generic pedagogical skills (direct instruction, active teaching, mastery teaching, etc.). Could this knowledge base validly inform subject-specific teaching in secondary schools?

The second issue had to do with how to incorporate field experiences as an integral part of the pedagogical training we envisioned. Even in the case of faculty members who agreed eagerly to collaborate, issues about effective professional training persisted. University faculty are accustomed to working in a university classroom setting, with field experiences used more for purposes of summative evaluation than for instruction. How could we shift from a lecture/discussion format with occasional field observations, to a genuine training format emphasizing practice and coaching? Cooperating teachers were seldom, if ever, asked to coordinate their work with the university supervisors. How were they now to become full partners in the preparation of prospective teachers?

The third issue derived from our hope that the project would serve as a catalyst and a pilot for comprehensive program development. We realized at the outset that there are many conceptions of "good" teaching and that faculty had made personal and professional commitments to certain ways of training teachers. Was the knowledge base identified in the Task Force report and adapted by the project sufficiently broad to appeal to the diverse value systems and teaching preferences of the UWM faculty and the public school teachers in the metropolitan area? Would our

colleagues--cooperating teachers, other School of Education faculty members--commit themselves to collaborative efforts based on this scholarly background? Would the faculty let go of the familiar to embrace a new approach to the training of teachers?

To address the first issue we took two important steps. First, the advisory group was structured so as to include teacher representatives of all core secondary subject areas and of junior high/middle schools as well as high schools. Letters and science faculty members also represented all the core secondary subject areas. Second, we presented preliminary formulations of our intentions to our advisory group, to check for face validity of our emphasis as it might be applied in subject specific secondary teaching fields. Similarly, we presented preliminary formulations to UWM School of Education faculty retreat meetings and sought commentary and criticisms. And, in our early instruction and management workshops for cooperating teachers, we deliberately used the workshops in an exploratory fashion, soliciting the judgments of the cooperating teachers about the pedagogical content in question. In all three cases we sought to learn (not merely to teach) about the manner in which the generic instructional and management practices could be adapted for new uses.

An indication of the value of this strategy comes from comments of an advisory group member at our last meeting:

> I think sometimes as teachers we feel that various people, administrative, non-administrative, come to us and ask us what do you think. But they've already decided what they're going to do and they're saying "well we're getting teacher input now" but it can be completely ignored and as I talk to teachers in different systems it seems we share that feeling and yet I go back to a sense of being professional. We're the ones that really care. Really good ideas will work here, but the feeling among teachers generally is that no one is really listening and you've been listening and I know from being on the other side

> that there were things that really came from this group and I've seen implemented and I can't say enough about how great that is. To actually know we have truly collaborated. That word is used sometimes but when you look you say we're not collaborating as equals. Research has been so loud about saying get input but then they very softly whisper and use it. They're just saying that. And we are collaborating. We're collaborating. There is a big difference and I think that's it. I think we've been made to feel that it's not them and us or you and me but it's we and I think that is being professional.

This strategy then, was generally successful. Based on the opinions of the advisory group members and the cooperating teachers who took part in the workshops, we feel confident that the knowledge base can be useful to secondary school teachers and prospective teachers. As will be discussed below, we have data that the knowledge base was used to analyze classroom events and that skills derived from this knowledge base were utilized in secondary classrooms. While the teachers acknowledged the necessity for a larger repertoire of teaching skills, they generally agreed that this set of skills was an important building block for prospective teachers. One important contributor to this endorsement was a conscious effort during the workshops on research-based teaching to present the material in such a way as to convey the notion that this was not a cut-and-dried, lock-step approach to teaching. We tried to make it clear that there was room within the approach for teacher decision-making and for adaptation to personal preferences and the needs of particular classrooms. The explicit recommendation of teachers throughout the project was to proceed full-speed-ahead with the training that had been developed. As one teacher put it, "I would propose that <u>all</u> cooperating teachers <u>must</u> have all three (workshops) or not get a student teacher."

The UWM faculty who worked with the secondary program also acknowledged the utility of this knowledge base--but with a stronger insistence that additional approaches must be included in the pedagogical

training of prospective teachers. Nevertheless, instructors in all five secondary areas (English, mathematics, social studies, science and foreign language) endorsed the utility of the knowledge base, albeit with varying degrees of enthusiasm.

With regard to the second issue, we embarked on the project with less well-developed plans and strategies. Indeed, the field-based component of our project became, in reality, more of a side issue than a central focus of our efforts. Consequently, the attempts to infuse field-based content into our program was done at the edges, so to speak, with particular attention paid to courses other than those dealing with instructional and management methods.

While the advisory group assisted with determining the nature of the field-based components to be included in the foundation courses and early field experience, the number of faculty involved in teaching the sections worked against full implementation of the desired changes. Since the Center for Teacher Education has revised one of these courses and the Professional Development Schools have come on stream, there is now a greater likelihood that the field based components will be included as designed. Indeed, the UWM faculty members assigned to the professional development schools are also responsible for teaching the new Introduction to Education course at the schools. However, full implementation is still some ways off.

The field based component of the project is now, to a large extent, to be embodied in the professional development schools. Drawing on the value of the advisory group, the professional development schools initiative utilized an overall policy making team involving UWM and MPS

representatives and similar teams in each of the schools to coordinate the school-specific aspects of the collaboration.

The third issue relates to the role of the project in the overall revision of the UWM teacher education program. Again, we embarked on the project without a thoroughly articulated strategy of how to impact on the total program. We naively expected the reforms recommended by the Task Force on Teacher Education to be implemented expeditiously and faithfully. We relied heavily on an overlap of project staff with Task Force and Center for Teacher Education membership. As the Center for Teacher Education was slow in coming on stream and then, once established, slow in bringing about change, we took steps to expand the project's reach to the faculty. We consciously sought to involve other faculty, especially those who taught foundation courses and those who were members of the Center for Teacher Education. We shared the needs assessment results with the entire faculty and had our invited "experts" make presentations to which the entire faculty was invited. The existence of our advisory group became widely known and the group's judgments were given wide publication. The Center for Teacher Education invited a teacher and a principal from the public schools to become full-fledged Center members. Nevertheless, the changes accepted in principle by the School of Education faculty when the Task Force report was accepted have not come about. Consequently, the work of the project was modified and the catalytic role we anticipated has not been totally successful.

As noted above, instead of having stand-alone courses, we have had to incorporate the new pedagogical content topically in existing methods courses. We gave sessions over to it in student teaching seminars. We used it in revisions of certain observation instruments which supervisors

then used in their work with student teachers. But we have not to date developed schedules, facilities, or procedures to convert our programs clearly to a new emphasis on clinical practice and coaching. In fact, we have had an extraordinarily difficult time getting the agreed-to general methods courses developed.

The drawn-out development process may be productive, however. For example, the current draft of the syllabus for the general methods course contains a new strand devoted to inquiry teaching to complement the other strand on explicit teaching/direct instruction. Still, limiting the course to two basic models--a major struggle--reaffirms the belief that teaching the models requires substantial time to observe the models being implemented as well as substantial time for the students to practice them and receive feedback. Information from this project has served to help convince faculty of this requirement. At any rate, more faculty now accept the curricular structure and content that has evolved.

To round out its work, the advisory group, at its last meeting in May, undertook a retrospective on the project and reflected on the project's successes and failures. The entire meeting was transcribed. That discussion provided a basic perspective for this report. Two members read the draft of this report and made suggestions for changes as appropriate.

III. Major Outcomes

We believe our work resulted in the following outcomes:

(1) Forty-eight cooperating teachers were taught the instructional and management content in two 15 hour workshops--one devoted to each topic. Our data indicate that these cooperating teachers made use of the

teaching and management behaviors in their own teaching and in their work with the student teachers. In the first instance, we have personal comments of the teachers such as the following:

-- These workshops provided me with a great deal of stimulation for my own classes. I use these new insights (and some are reminders of things learned in the past) to improve my own teaching.

-- These workshops gave me some clarified ideas on what I can do better personally.

-- The workshops have and will help me in the teaching of my own classes. They made me more cognizant of my own teaching methods and interaction with students. We need time to re-evaluate ourselves and, also, to arrive at new decision-making techniques as to how we can be more effective teachers.

-- I am more aware of my own teaching and management style which allows me to help my student teachers.

-- I've already been able to apply some of the concepts from the earlier workshops which did help my student teacher last semester.

Another source of data comes from the approximately 20 teachers who took the third workshop, coaching of prospective teachers, during the spring after having completed the other two earlier in the year. These teachers responded to a questionnaire that asked them to describe the extent of their own use of the seven teaching and management behaviors that summarize the content of the workshops. On a scale of 0 (no use of the behavior) to 3 (very frequent use of the behavior), these 20 teachers averaged between 2.26 and 2.64 for the seven behaviors. That is, these teachers reported a very high use of the seven behaviors in their own teaching. We realize that this self-report data may not be very persuasive. In fact, in an earlier use of this questionnaire, untrained cooperating teachers reported that they used six of the seven behaviors more frequently than did trained cooperating teachers. We explained that

result by surmising that the trained cooperating teachers were more knowledgeable about the research-based teaching and management behaviors than the untrained teachers and more discriminating when reporting their own use of the skills.

Additional data regarding this outcome comes from a study done to determine the extent to which trained cooperating teachers used the teaching and management concepts in analyses of their student teachers' teaching and communicated the concepts to student teachers during post-lesson conferences. A sample of nine cooperating teachers was selected for the study. The sample included three social studies teachers, two foreign language teachers, two English teachers, one science teacher and one mathematics teacher. Data were collected through video tapes of lessons taught by nine student teachers, and through stimulated-recall interviews with the student teachers and cooperating teachers and through researcher analysis of video tapes of post-lesson conferences between the cooperating teacher and the student teacher. The analysis of the interviews and the post-lesson conferences was guided by the Teaching and Management Skills rating form. (See Figure 1 above.)

The analysis of the data revealed that, in general, the teaching and management concepts that were the basis of the two workshops were used by the cooperating teachers to analyze their student teachers' teaching and were communicated to student teachers during post-teaching conferences. Some cooperating teachers used the concepts more than other cooperating teachers did and some concepts were used more than others in the analysis of the teaching. In particular, the concepts, "prepares for instruction" and "models procedural consistency" were not used extensively, possibly because the video-taping reduced even normal disruptions in the

classrooms. On the other hand, the concepts of "establishes readiness," "provides practice" and "acts on feedback" were used extensively.

The earlier study in which trained cooperating teachers were compared with untrained cooperating teachers indicated that the trained teachers were more conscious and deliberate than their untrained colleagues about demonstrating the use of research-based teaching and management behaviors and about encouraging or requiring their use by the student teacher.

Overall, therefore, we feel confident that cooperating teachers have learned the teaching and management behaviors and will model the behaviors for prospective teachers and utilize them in coaching analyses. We believe this is one of the most important outcomes of the project since it will allow continuity between the instruction provided prospective students in the university setting and the instruction they receive in the school setting from cooperating teachers.

(2) Prospective secondary school teachers were taught the instruction and management content in modules during methods courses and student teaching seminars. As a result they were able to utilize the concepts to analyze their own teaching and to describe what they were learning from their cooperating teachers and from their instructors at the university. Periodically during the semester of their subject methods course and during the student teaching semester, the prospective teachers were asked to record the pedagogical knowledge, ideas and insight they acquired. On the first semester form the students described what they learned about instruction or management in the methods course and during the associated field experience in a school. In the student teaching semester, the students described what they learned through reflection on their own student teaching, from their instructor or peers during the

associated student teaching seminar or directly from the cooperating teacher. (The forms we utilized are included in Appendix C.) We content analyzed completed forms from a sample of 25 students. The analysis was done by looking for instances of reference to the seven teaching and management behaviors included on the summary instrument contained in Figure 1.

Each student did not make reference to each behavior, and some behaviors were referred to more often than others. Nevertheless, it was clear from the completed forms that the students were able to use the language associated with the pedagogical content to describe what they learned. Further, the data indicate that it was during the methods course module that the instructional content was dominant and during the student teaching seminar module that the management content was dominant.

From the study of student teachers whose lessons were videotaped and then analyzed in an interview, there is further evidence that the student teachers use the teaching and management concepts to analyze their own teaching. However, of the nine student teachers who were interviewed, only five, in our judgment, used the concepts extensively. Nevertheless, all the student teachers referred to at least three of the concepts during the interviews.

Finally, we have summary judgments by student teacher supervisors of the extent to which a sample of student teachers used the teaching and management behaviors. These judgments by university instructors indicate substantial use of the behaviors by most of the sample. Combined with other evidence we feel fairly confident that the student teachers learned the concepts, were able to use them to analyze their own behavior and were also able to use them in their teaching.

(3) A third major outcome of the project has been the establishment of the professional development schools and the training of a substantial cadre of cooperating teachers in the two secondary schools. As of this date, ten cooperating teachers at Riverside-University High School and ten cooperating teachers at Fulton Middle School have participated in all three workshops. While the professional development schools are not yet operating at anything near maximum effectiveness there is a spirit of collaboration already evident. Indeed, the spirit, at least among a significant minority of the staff, is one of enthusiasm for the prospect of contributing significantly to the preparation of prospective teachers. Teachers appreciate the explicit identification of what the university is trying to accomplish with student teachers. They are eager to reinforce and complement the university course work. As one teacher commented, "I have a sense of being on a team and I will try to interact with the students to bring about or facilitate some of the same goals as the university has."

The workshop training in research-based teaching and classroom management and in coaching of prospective teachers has contributed greatly to a feeling of competence on the part of the cooperating teachers in the professional development schools. "Being responsible for the 'training' of a student teacher is rather awesome," said one teacher; "these workshops have made the job easier." In addition, the assignment of a Center faculty member to each of the professional development schools for the equivalent of one of the three courses he/she would be expected to teach each semester has send a powerful signal to each school's staff regarding the commitment of the School of Education. Finally, the

reception for the schools' teachers at the university has contributed greatly to a sense of embarking on an exciting collaborative project.

IV. Implications for Others

Our project has implications for others deriving from the content and from the program development efforts.

First, the knowledge base associated with direct instruction, active teaching, mastery teaching, etc., can, in certain important respects, inform secondary teacher education methods instruction. The knowledge base, in its various formulations, highlights teacher skill in (A) deliberate introductory activity (set, review, etc.), (B) presentation of new content or skills, (C) student engagement through practice, (D) teacher attentiveness to students' understanding during lessons, and (E) the withdrawal of instructional support as students move toward independent applications. Our work in methods courses and student teaching has shown that all five skill areas serve well as focal points for practice in instructional planning and for practice in reflection and self-criticism based on reviews of completed teaching episodes. Particular instances of work conceived in these terms do vary greatly across and within curricular areas. But the five skill areas help new secondary teachers when they are used as heuristic devices, subject to adaptation for specific purposes.

This judgment of the utility of the knowledge base, drawing on the totality of our work with prospective teachers and cooperating teachers is important because most of the relevant research has been done in elementary schools. Of course, we do not have data on pupil outcomes. Obviously, extending the research to pupil outcomes in all secondary

subject areas is necessary but, in the meantime, we are persuaded by the willingness of cooperating teachers and prospective teachers to use the behaviors based on existing research, by their readiness to describe and analyze teaching behavior in these terms, and by their assertions that the research base contributes to their effectiveness as teachers.

As our faculty has struggled with creating a general methods course we have become aware of another curricular implication. The knowledge base associated with this conception of teaching helps to describe a difference between explicit or presentational teaching and inquiry teaching. There are two main points of distinction: (A) In inquiry teaching, the presentation phase is important, but it consists of presenting a question or a problem, not an exposition or a generalization. (B) In inquiry teaching, the practice phase may not be possible to provide. Whatever practice is, it involves repetition of problem solving activities in new instances. The new instances reflect, somehow, formally similar problems. Practice in this sense in difficult or impossible to conceive when the problem is (at least apparently) one-of-a-kind. It is difficult to imagine, for example, how one might design practice activities to aid students in understanding the concept of mercantilism as it is developed in a particular essay in The Federalist Papers, or how one might practice deciding how imagery patterns reflect thematic issues in "A Midsummer Night's Dream."

But it is good to learn about these limitations on the use of the teaching models in question. The limitations suggest areas for further work in conceptualizing subject specific teaching methods.

Another implication related to the content of the project concerns classroom management. The knowledge base for management drawn upon in our

project work appeals strongly to secondary teachers in all content fields. The approach to classroom management associated with the work of Walter Doyle, Emmer and Evertson, etc., helps secondary teachers focus on instruction, rather than discipline, as a source of order. The teachers approve this instructional emphasis. They are relieved to learn that it does not admonish them to practice counseling psychology. At the same time, they acknowledge that it encourages an orientation to simplified academic work, and that this orientation might, de facto, conflict with goals of their espoused curriculum. Undue simplification or "proceduralizing" of content and instruction may result as teachers seek to ensure order by reducing uncertainty and risk in academic work. The tension highlighted by the latter point warrants extensive, continuing attention.

Overall, the project's focus on pedagogy is a needed complement to most of the recent national reports that have focused on the discipline-based substance of instruction as the route to secondary school improvement. We think it is important to train cooperating teachers and prospective teachers to become technically better teachers as well as better versed in their subject specialty. Further, we have become persuaded that pedagogical training can make teachers more reflective at the same time.

Finally, there are implications related to the program development process. Some of these were referred to earlier; others will be discussed in the section on "lessons learned." An additional implication may be particularly germane for universities such as ours where it is necessary to provide any interested party with an opportunity to have his/her wishes addressed in the program development process. The main drawbacks are a

possible dilution of the product and the time needed for involvement. The main advantage is that many viewpoints get involved and represented. Whatever the advantages or dieadvantages, involvement at this university and most others is desirable and necessary. Interestingly, cooperating teachers have been allies but are not yet a powerful enough voice to make a major impact on deliberations within the university.

V. Institutionalized Features

A cadre of School of Education faculty will continue to pursue the study and implementation of project-related ideas after September, 1988. The Center for Teacher Education, with continuing help from project associates, will provide institutional support for continued course development and collaboration informed by the project's focus on instruction and management.

A library of videotapes of teachers modeling the research based teaching and management behaviors has been initiated and will be expanded. As a result of the input from Bruce Joyce and Beverly Showers, we have a greater appreciation of the need to have models of desired teaching behavior for prospective teachers and cooperating teachers to observe and analyze. As we will note below, we have extended the use of video tapes to cover the cooperating teacher-student teacher conference. Several teachers have even allowed us to tape classes during the first days of school in the fall. This has enabled us to have models of teacher behavior during those crucial first days. These exemplars will be useful for instruction on classroom management.

The professional development schools will continue and will be better situated to work with prospective teachers because a number of the

schools' faculty have received the training provided by our workshops. A UWM faculty member will continue to be assigned to each school although support provided by this project for the staff development activity will end. It is encouraging that the Milwaukee Public Schools has picked up support for the elementary teachers who are attending training sessions but the instruction is being done by the university faculty liaisons in the schools. (Obviously, this cuts into the amount of time these faculty members are available to work with students in the schools.) Clearly, the School of Education will have to address the need for the initial training of additional cooperating teachers and for any continuing inservice work that is required or desirable. We have not yet squarely focused on the comparative costs and benefits to the two collaborating institutions but have been operating on a reservoir of good will that extends to all of our collaborative relationships--especially at higher organizational levels.

The advisory group will certainly be discontinued at the end of the project but the benefits of including at least a couple of public school representatives on the Center for Teacher Education are clear. The early success of the project advisory group led directly to including school people as full partners on the Center for Teacher Education and this will continue--and may be expanded--in the future. The joint UWM/MPS professional development school committee will continue as will the committees in the schools themselves. In essence, the model of an equal partnership of university and public school faculties will extend beyond the termination of this project. Responsibility for continuation of other features will rest primarily with the Center for Teacher Education. However, all project associates will continue to be affiliated with the Center in one way or another, although it is now hard to tell where the

project starts and where the Center takes over. We see this as a valuable feature of the evolution of the project.

There is another feature of the project that, if not quite institutionalized, is now present in the relationship between public school teachers and the university. We refer to raised expectations about the content of the UWM teacher education program and the School of Education's relationship to schools and teachers. A significant number of teachers in the metropolitan area have now heard about the changes intended for the UWM teacher education program. They applaud the intended revisions and look forward to receiving new teachers in their schools who have been through the changed program. These expectations put a bit more pressure on the School of Education to come through on its announced intentions. We think that pressure will be productive.

VI. Overall Strengths and Weaknesses and "Lessons Learned"

In addition to the outcomes described above and their implications for others, an important "lesson learned" is the realization of the enormity of the task we have carved out for ourselves. We chose to revise a number of elements of our secondary teacher education program. At the same time, the School of Education was embarking on a major structural change and comprehensive curricular change. All the pieces did not fit together neatly.

Frankly, when the proposal was written in the summer of 1985, it was thought that curricular change in the School of Education would proceed much more rapidly than it actually has. We had planned to be able to offer courses on research-based teaching skills and classroom management that would be available to prospective secondary school teachers in all

teaching disciplines. The process of change has been much slower, of course, so we have had to take advantage of opportunities when and where they became available. As a result, our courses on research-based teaching and management behaviors were reduced to modules that were included in methods courses and student teaching seminars.

In similar fashion, the inclusion of field experiences in professional education courses has not been done easily. For example, finding teachers willing to work with students during the Principles of Classroom Appraisal and Evaluation course was a difficult and time consuming task. That task will be made easier once the professional development schools are fully functioning. The implementation of the professional development schools is proceeding but, again, the process is much slower and more complex than originally thought.

Although we are frustrated by the slowness with which substantial change has come to our teacher education program, we realize there are many reasons for this slowness and, we can put a positive construction on at least one of them. As new faculty members have become involved in the change process (serving on the original Task Force on Teacher Education, serving on one of the follow-up committees, serving on the Center for Teacher Education) it has become necessary to go back over and over again to what had been resolved once or twice earlier. Interestingly, this process had led to reinventing the same wheel, albeit with modifications that must be looked upon as improvements. As noted above, the newly structured general methods course contains a new strand devoted to inquiry teaching to complement the other strand on explicit teaching/direct instruction.

A major strength of the project was effective use of the advisory group. The project had, from its inception, a responsive character; it was clearly oriented to real concerns of practicing professionals. From another perspective, the accomplishment of the main tasks of the project, during the the last three years and into the years ahead, was made possible (and will continue to be) because of the willing collaboration of the cooperating teachers. We continue to be impressed by this attitude on the part of teachers.

In addition to funding curriculum development and the teaching of workshops and modules on instruction and management, this project has enabled us to bring in "experts" and to send faculty and teachers to visit other sites. Advisory group members trememdously valued the opportunity to interact with people like Barak Rosenshine and Bruce Joyce. This was part of being treated as professionals--a treatment that brings a return in the acceptance of professional responsibility for the education of those entering the profession.

As the project evolved, it became increasingly clear that the emphasis on pedagogical training did not preclude attention to conceptual issues of contested values. On the contrary, heuristic uses of instructional research helped to raise and clarify issues of curriculum and value not addressed directly in the generic teaching models. Because of this, student teachers, cooperating teachers and methods instructors found themselves engaged in genuine exploration and developmental activity, not merely in skills practice.

Despite the strengths and positive outcomes of the project, we were not successful, in persuading the School of Education faculty as a whole of the value of the approach to teacher education we were advocating.

Throughout our conduct of project activity, some faculty continued to object strongly to our focus on instruction and management, arguing that that focus was perverse because it did not do justice to important characteristics of students (e.g., developmental patterns), of contexts (e.g., the context of social class disparity in American education), and of issues related to epistemology. Project associates did not succeed in drawing these critics into the effort, where they might have enriched the project as a whole through dialogue and constructive counter proposals.

More importantly, as indicated earlier, the project merely scratched the surface in helping the School of Education to move toward development of comprehensive procedures. We have interesting conceptual bases now for describing and exploring instruction and management. But we need to do a great deal of work to incorporate these conceptual bases in focused, sequential training programs augmented by demonstration teaching, taping, scheduled opportunities for coaching, re-teaching, and reflection. The big plus, of course, has been the creation of a group of teachers who are willing and able to assist in this effort and schools that have been officially designated as training sites. Other institutions contemplating similar work should perhaps attend from the start, as a top priority, to arrangements necessary for clinical training. They should know, however, that creating an entirely new approach to teacher training will likely meet stiff opposition.

VII. Products and Dissemination Activities

Data collected as part of this project led to a paper presented at the 1987 Annual Meeting of the American Educational Research Association. The paper by Western, Zahorik, Kritek and Smith is titled "A Study of

Cooperating Teachers' Instructional Roles." Additionally, presentations were made at the Fall 1987, meeting of the Midwest Educational Research Association in Chicago and at the 1988 meeting of the Association of Teacher Educators in San Diego. Proposals for presentations have also been submitted for the 1989 annual meetings of the Association of Teacher Educators, the American Association of Colleges of Teacher Education and the American Educational Research Association.

The other products we have prepared are video tapes to be used as models of teaching behavior, syllabi for workshops and course modules and our summary instrument of teaching and management behaviors.

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Program Assessment

for

Incorporating Research Based Teaching Skills into a Field Based Secondary Teacher Education Program

Contract No. 400-85-1046
University of Wisconsin-Milwaukee
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This report describes the outcomes of a project conducted at the University of Wisconsin-Milwaukee (UWM) funded under a contract from the Office of Educational Research and Improvement in the U.S. Department of Education. The project had two main goals: (1) to use research about effective instruction and effective classroom management as bases for improved training in pedagogy for prospective secondary school teachers and to link clinical experiences more explicitly and closely to the classroom-based pedagogical training; and (2) to utilize the project as a catalyst for the larger UWM effort to restructure and improve all its teacher education programs.

I. Major Questions.

This assessment of the UWM project seeks to answer the following questions regarding major anticipated outcomes:

Did the workshops for cooperating teachers on research-based teaching and management result in their use of these behaviors in their own teaching and in their coaching/supervisory work with prospective teachers?

Did the instruction of prospective teachers on research-based teaching and management result in their use of these behaviors during student teaching and as a referent in their analysis of their own teaching?

Has the project led to the institutionalization of the use of this knowledge base and the clinical experiences in the UWM teacher education program?

In order to be able to answer these outcome questions, we also sought to answer the following implementation questions:

What is the instructional content in the research-based teaching and management modules for prospective teachers and in the workshops for cooperating teachers?

What did the students and cooperating teachers take from their experiences in these modules and workshops?

What has been the relationship of the project to the larger teacher training effort at UWM?

II. Program Description.

The project at the University of Wisconsin-Milwaukee School of Education had two main goals--one related to professional content in the teacher education program; the other related to a complex strand of program development activity. The content goal had two components: first, project activities were designed to incorporate research on effective instruction and effective classroom management into the secondary teacher education program. Second, the project sought to make clinical experiences a more integral part of the secondary teacher education program. Both efforts essentially constitute an initial implementation of several of the recommendations of the October, 1985 report of the School of Education's Task Force on Teacher Education which called for sweeping changes in the way prospective teachers are trained at UWM. Thus, the second main goal was to encourage the incorporation of these curricular elements into the elementary teacher education program and into the

program for the preparation of special education teachers. In essence, this goal was to facilitate overall program change.

The particular research on instructional effectiveness chosen to inform our program includes, first, a synthesis of elements of direct instruction, active teaching, mastery teaching and mastery learning, (see, for example, Block and Anderson, 1977; Good and Grouws, 1979; Hunter, 1982 and Rosenshine, 1983) and, second, general classroom management strategies drawn from the work of Doyle (1984) and Emmer, Evertson, Sanford, Clements and Worsham (1984). The first set includes skills related to planning, establishing readiness/motivation, presenting, practicing, checking and reviewing. The second set includes skills related to getting started, utilizing instruction to maintain students on task, dealing with minor disruptions and dealing with more severe disruptions. Neither of these sets of teaching skills has been explicitly contained in the curricula of the UWM teacher education programs. It should be noted that these are not the sole research bases to be utilized in the UWM teacher education program. We intend eventually to incorporate skills for inquiry teaching and skills needed to utilize cooperative learning strategies.

Our approach has been to develop and offer modules on effective instruction and effective classroom management that are incorporated into the methods courses and student teaching seminars for prospective teachers and workshops on the same topics for cooperating teachers, i.e., those public school teachers with whom our student teachers are placed. A workshop that deals explicitly with the coaching of prospective teachers was also offered to cooperating teachers. This workshop built on the previous two and, in addition, dealt with adult learning and development, communication skills and the recording of classroom events. Each workshop

was the equivalent of one graduate credit. The workshops and course modules include segments dealing with the research and also opportunities to practice the research-based behaviors.

Our project sought to make the teacher education programs more clinically based. In addition to our work with cooperating teachers there was development work done on four teacher education courses other than the methods course and the student teaching seminar. Thus, the existing Pre-Education Field Experience/Colloquium course (the first course for prospective teachers) was re-designed to provide for structured observations in schools rather than the unstructured approach that had been the practice. Further, the project encouraged the incorporation of clinical experiences into these required professional education courses: Cultural Foundations of Education, Introduction to Human Growth and Development and Principles of Classroom Appraisal and Evaluation. Finally, the project led to the creation of two secondary professional development schools--sites where a significant amount of pre-service training takes place. (Two elementary professional development schools have also been established.)

Collaborative planning was done initially through an advisory group consisting of fifteen secondary school teachers from the Milwaukee Public Schools (MPS) and representative suburban school districts. Teacher educators and representatives of the UWM College of Letters and Science have also been involved in the advisory group meetings. One of the primary tasks of the advisory group was to get teacher opinions about the utility of the research based teaching skills for secondary school teachers since most the research was done in elementary school settings. Collaborative planning has also taken place through a committee involving

MPS and UWM faculty and administrators charged with creating policy for the professional development schools. Additional planning takes place at the level of each of the four buildings where principals and teachers work with UWM faculty members. One UWM tenured faculty member has been assigned to each of the professional development schools for the equivalent of one of his/her required three courses each semester. Approximately twenty teachers in the two secondary professional development schools have participated in all three cooperating teacher workshops.

III. Sample.

This assessment of the project will focus on approximately twenty-five prospective secondary school teachers and on approximately twenty cooperating teachers. Additional data are derived from an analysis of videotapes of lessons taught by nine student teachers and through stimulated recall interviews based on these videotaped lessons with the student teachers and their cooperating teachers and through researcher analysis of the videotapes of the post-lesson conferences between the cooperating teacher and the student teacher.

IV. Methodology (Data Gathering Process).

In order to answer the major questions addressed by this assessment we utilized data generated by the following data-gathering processes.

(A) The documentation of what has been learned by the cooperating teachers who took the workshops has been accomplished by the following technique. At the start of the workshop, we asked the cooperating

teachers to indicate the prescriptions they recently made to a student teacher and the source or basis for each of the prescriptions. These responses were analyzed to provide a base line of the cooperating teacher's knowledge of the workshop content. At the end of the workshop we make use of a written assignment that gave an indication of the knowledge the cooperating teacher learned during the workshop.

A sample of approximately twenty cooperating teachers who took the third workshop, coaching of prospective teachers during the spring, after having completed the other two workshops earlier in the year, responded to a questionnaire that asked them to describe the extent of their own use of the seven teaching and management behaviors that summarize the content of the workshops.

An earlier sample of twenty cooperating teachers who had completed the first workshop responded to a similar questionnaire as did a sample of 47 untrained cooperating teachers. These earlier samples were also asked to indicate the extent to which they demonstrated the research based teaching and management behaviors and the extent to which they encouraged or required their student teachers to use the behaviors.

(B) A sample of 25 prospective secondary teachers kept a structured log during the semester of their subject methods course and during the student teaching semester. Periodically during the semester of their subject methods course and during the student teaching semester, the prospective teachers were asked to record the pedagogical knowledge, ideas and insight they acquired. On the first semester form, the students described what they learned about instruction or management in the methods course and during the associated field experience in a school. In the student teaching semester, the students described what they learned about

instruction or management through reflection on their own student teaching, from their instructor or peers during the associated student teaching seminar or directly from the cooperating teacher. Content analysis was done by a graduate assistant who looked for instances of reference to the seven teaching and management behaviors included on the Teaching and Management Skills form.

A sample of twenty secondary student teachers drawn from several academic disciplines was observed by a project associate during the student teaching semester in the spring of 1988. These student teachers were rated on the Teaching and Management Skills instrument described below. A second group of 26 student teachers was rated in the spring of 1987 by trained university supervisors who have the responsibility for visiting and working with the student teachers and cooperating teachers.

(C) Data were collected through the use of video tapes of actual lessons taught by nine student teachers. One class period taught by a secondary student teacher who was working with a trained cooperating teacher, and the following student teacher-cooperating teacher conference, were video taped during spring, 1988. The student teacher teaching tape was used as the basis for two interviews, one with the student teacher and one with the cooperating teacher. The interviews were conducted by university faculty members associated with the project. These interviews, which were conducted separately, consisted of three questions asked at timed intervals. At five minutes, ten minutes, 20 minutes, 30 minutes, 40 minutes and 50 minutes (or the end of the lesson) the video tape was stopped and the student teacher and cooperating teacher were asked the same questions: What are you (is the student teacher) doing in this segment? What are you (is the student teacher) doing that is appropriate

and why? What are you (is the student teacher) doing that is inappropriate and why? The length of the interviews averaged 90 minutes.

Data analysis of the interviews consisted of examining interview notes in an effort to find references to the research-based teaching and management concepts. The student teacher-cooperating teacher taped conferences were also analyzed to find references to these concepts. All analyses were done by faculty project associates.

(D) In order to answer the questions related to the content of the workshops and course modules and the institutionalization of the project features, syllabi and notes maintained by project associates were examined.

V. Instrumentation (Data Gathering Tools)

Observations and analyses made use of an instrument that contains statements of the global teaching and management behaviors we are seeking. A form that provides for a summary statement of performance of each of the skills is attached as Figure 1. While we believe that this instrument has high content (face) validity we used the Florida Performance Measurement System instruments for Management of Student Conduct and Instructional Organization and Development as a means of determining construct validity. A sample of student teachers was observed on video tape by trained observers using both the Florida system and our own instrument. Nine observers used our instrument and eight used the Florida Performance Measurement System. Ratings on the seven items of the Teaching and Management Behaviors summary were compared with ratings on related categories of the Florida instruments. A statistically significant correlation coefficient of .5716 was computed.

	Almost Always	Frequently	Seldom	Never
1. Establishes Readiness	3	2	1	0

Takes deliberate steps early in the class period to prepare students for what is to be taught. E.g., reviews prior learning, provides concise overview of new objectives and activities, gives reasons for study of the new objectives. Opposite behavior: Begins to teach immediately after taking attendance, signing passes, etc.

2. Presents New Material	3	2	1	0

Presents information, explanation, or demonstration which students will use subsequently in new tasks. The presentation is organized and sequenced so that students begin from an easy start Opposite behavior: Assigning new tasks or asking new questions with no teacher presentation related to those tasks or questions.

3. Provides Practice	3	2	1	0

Engages students in activities in which they use (interpret, apply, modify, etc.) the content of skills previously presented. Sequences the practice activities to provide initial high success rates. Helps students while they practice. Opposite behavior: Moves directly from start of lesson to assignment of a task which students must perform independently; or moves from start of lesson to a different subject.

4. Acts on Feedback	3	2	1	0

Attends to students' responses during presentation and practice. Provides additional information and practice as indicated by students' responses. Opposite behavior: Moves forward without regard for students' responses.

5. Prepares for Instruction	3	2	1	0

Attends to room arrangements, teaching plans, and materials prior to each lesson. States behavior expectations and procedures to be followed. Opposite behavior: Improvises arrangements and activities; assumes that students should know what to do and how to do it.

6. Maintains Focus	3	2	1	0

Handles procedural obligations (attendance, etc.) through routines so that academic focus is not blurred. Maintains teaching pace and momentum, handling minor disturbances without interrupting the lesson. Opposite behavior: Allows procedural matters and other non-academic distractions to dominate the class.

7. Models Procedural Consistency	3	2	1	0

Refers to previously stated procedures in interpreting and responding to classroom events. Communicates precise information to students--acknowledging proper conduct, praising academic effort, restating procedures as necessary. Follows building procedures in handling serious misbehavior. Opposite Behavior: Interprets and responds to classroom events idiosyncratically, without regard for stated academic goals or class or building procedures.

Figure 1: Summary of Teaching and Management Skills

VI. Results/Findings

(A) Cooperating Teachers. The pre-workshop prescriptions for student teachers reported by cooperating teachers constituted our initial appraisal of the cooperating teachers' knowledge of the research-based concepts. As expected, these prescriptions were heavily directed toward classroom management. Further, the reported source of the prescriptions was often a reason rather than an actual source. The most commonly mentioned source, not surprisingly, was the personal experience of the cooperating teacher. There was virtually no mention of research as a source for any prescription. At the end of the workshop, teachers were able to articulate how and in what circumstances they would use the research-based concepts to help student teachers improve their teaching.

Self reports by cooperating teachers who participated in the research-based teaching and management workshops indicate that these cooperating teachers made use of the teaching and management behaviors in their own teaching and in their work with the student teachers. In the first instance, we have personal comments of the teachers such as the following:

-- These workshops provided me with a great deal of stimulation for my own classes. I use these new insights (and some are reminders of things learned in the past) to improve my own teaching.

-- The workshops have and will help me in the teaching of my own classes. They made me more cognizant of my own teaching methods and interaction with students.

-- I am more aware of my own teaching and management style which allows me to help my student teachers.

-- I've already been able to apply some of the concepts from the earlier workshops which did help my student teacher last semester.

Additional self-report data come from the 20 teachers who took the third workshop, coaching of prospective teachers, during the spring after having completed the other two workshops earlier in the year. These teachers responded to a question that asked them to describe the extent of their own use of the seven teaching and management behaviors that summarize the content of the workshops. On a scale of 0 (no use of the behavior) to 3 (very frequent use of the behavior), these 20 teachers averaged between 2.26 and 2.64 for the seven behaviors. That is, these teachers reported a high use of the seven behaviors in their own teaching. We realize that this self-report data may not be very persuasive. In fact, when a group composed of trained and untrained cooperating teachers was asked a similar question earlier in the project, both groups reported high usage but the untrained cooperating teachers reported that they used six of the seven behaviors more frequently than did trained cooperating teachers.

However, the group of twenty teachers who took the third workshop was also asked to elaborate on the rating they gave themselves and describe the situations in which they used a behavior. An analysis of these comments indicated knowledge of the teaching and management concepts and relatively clear reasons for frequent (or limited) use.

The data collected through video tapes of lessons taught by nine student teachers, and through stimulated-recall interviews with the student teachers and cooperating teachers and through researcher analysis of video tapes of post-lesson conferences between the cooperating teacher and the student teacher were analyzed using the Teaching and Management Skills rating form.

All of the cooperating teachers who were interviewed used the explicit teaching and management concepts to analyze their student teachers' teaching, but some cooperating teachers were heavier users than others and some of the concepts were used more than others. Of the nine cooperating teachers, four used the concepts extensively, two used them moderately, and three used them infrequently. The most frequently used concepts of the seven were set, practice, and feedback. These data are presented in Table 1.

Analyses of the post-observation conferences are reported in Table 2. They reveal that all of the cooperating teachers communicated research-based teaching and management concepts to some degree. Of the nine cooperating teachers, two communicated the concepts repeatedly and almost exclusively while six used the concepts moderately and one used them infrequently. The teaching and management concepts that were dealt with the most were the same concepts that the cooperating teachers (and the student teachers) used most frequently to examine the student teachers' teaching: set, practice, and feedback. Comparatively little mention was made of preparation, and procedural consistency. Both presentation and preparation were used more often during the conferences than they were during the analyses of the lessons.

Finally, in the comparison between the twenty trained and 47 untrained cooperating teachers referred to above, the trained cooperating teachers reported that they demonstrated the behaviors and encouraged or required use of the behaviors by student teachers substantially more than the untrained cooperating teachers did.

Table 1

Frequency of Use of Teaching and Management
Concepts by Cooperating Teachers (CT's) to Analyze Teaching

Teaching and Management Concepts

CT	Set	Presentation	Practice	Feedback	Preperation	Focus	Consistency	Total
CT1	2		5	2		2	3	14
CT2	5	2	3	2		2	2	16
CT3	3		6	3		2		14
CT4	4		3	1	1			9
CT5	4			2				6
CT6	1			2		1	1	5
CT7	3			2			1	6
CT8	4	1	2	1		1	1	10
CT9	3	1	4	2		2	1	13
	29	4	23	17	1	10	9	93

Table 2

Frequency of Communication of Teaching and Management
Concepts by Cooperating Teachers (CT's) During Post-Teaching Conference

CT	Set	Presentation	Practice	Feedback	Preparation	Focus	Consistency	Average
CT1	2	1	1	2		1	1	1.14
CT2	2				1			.33
CT3	1	2	2	2				1.00
CT4	2	1	1		1			.71
CT5	2		2	1				.71
CT6	1	1		1		2		.71
CT7	1			2		1		.57
CT8	2		2	2				.86
CT9	2	2	2	2		2	2	1.71
Average	1.67	.67	1.11	1.33	.22	.67	.33	

Key: 1 = Moderate Use 2 = Extensive Use

(B) Prospective Secondary School Teachers. The analysis of the completed structured logs revealed that prospective teachers who had received training in research-based teaching and management were able to use the language associated with the pedagogical content to describe what they learned. However, each student did not make reference to each teaching and management behavior, and some behaviors were referred to more often than others. The data indicate that it was during the methods course module that the instructional content was dominant and during the student teaching seminar module that the management content was dominant.

Observations of twenty student teachers completed by a project associate and observations of 26 student teachers done by student teacher supervisors resulted in judgments of the extent to which the student teachers used the teaching and management behaviors. These judgments indicate substantial use of the behaviors by most of the student teachers in both samples. Table 3 present the averages of the summary judgments across all student teachers. The scale is that used on the Teaching and Management Skills summary form.

From the study of student teachers whose lessons were videotaped and then analyzed in an interview, there is further evidence that the student teachers use the teaching and management concepts to analyze their own teaching. However, of the nine student teachers who were interviewed, only five, in our judgment, used the concepts extensively. Nevertheless, all referred to at least three of the concepts during the interviews. The teaching and management concepts used most frequently by the student teachers to analyze their teaching were the same as those used most frequently by the cooperating teachers. They are set, practice and feedback. These data are included in Table 4.

Table 3

Summary Judgments of the Extent
to which Student Teachers Utilized
Teaching and Management Behaviors

	26 Student Teachers Observed by University Supervisors	20 Student Teachers Observed by Project Associate
1. Establishes Readiness	2.28	2.10
2. Presents New Material	2.68	1.85
3. Provides Practice	2.56	2.45
4. Acts on Feedback	2.40	2.00
5. Prepares for Instruction	2.44	2.15
6. Maintains Focus	2.56	2.65
7. Models Procedural Consistency	2.28	2.10

Almost Always = 3; Frequently = 2; Seldom = 1; Never = 0

Table 4

Frequency of Use of Teaching and Management
Concepts by Student Teachers (ST's) to Analyze Teaching

Teaching and Management Concepts

ST	Set	Presentation	Practice	Feedback	Preparation	Focus	Consistency	Total
ST1	1		3	2		1		7
ST2	5		2	2		3		12
ST3	1	2	3	4		1	1	12
ST4	1		4	1				6
ST5	1		4	2				7
ST6	2		2	5		2		11
ST7	2	1	3	2	1	2		11
ST8	1		2	2		1		6
ST9	2		4	3		2		11
Total	16	3	27	23	1	12	1	83

(C) Impact on University's Teacher Education Programs. Despite the recommendations of the Task Force and the intent of the project plan, stand-alone general methods courses in instruction and management have not yet become a reality. We have had to rely on the modules instead--an alternative that falls substantially short of the desired six credits of coursework in pedagogy. The modules cover roughly the same material as the two cooperating teacher workshops without the attention paid to coaching implications. However, there is insufficient opportunity for the prospective teachers to thoroughly practice the research-based behaviors and to receive feedback on their performance.

In 1987, the UWM School of Education and the Milwaukee Public Schools worked out an agreement to create four professional development schools--schools where MPS and UWM faculty members would collaborate in focused teacher education activity. Project staff have conducted the research-based teaching, management and coaching workshops at the two secondary professional development schools. Ten cooperating teachers in each of the schools have now completed the full set of workshops. The workshops for the professional development schools' faculties extended the line of training for cooperating teachers (mentioned above) in a new institutional partnership.

While the professional development schools are not yet operating at anything near maximum effectiveness there is a spirit of collaboration already evident. Indeed, the spirit, at least among a significant minority of the staff, is one of enthusiasm for the prospect of contributing significantly to the preparation of prospective teachers. Teachers appreciate the explicit identification of what the university is trying to accomplish with student teachers. They are eager to reinforce

and complement the university course work. As one teacher commented, "I have a sense of being on a team and I will try to interact with the students to bring about or facilitate some of the same goals as the university has."

The workshop training in research-based teaching and classroom management and in coaching of prospective teachers has contributed greatly to a feeling of competence on the part of the cooperating teachers in the professional development schools. "Being responsible for the 'training' of a student teacher is rather awesome," said one teacher; "these workshops have made the job easier." In addition, the assignment of a Center faculty member to each of the professional development schools for the equivalent of one of the three courses he/she would be expected to teach each semester has send a powerful signal to each school's staff regarding the commitment of the School of Education. Finally, a reception for the schools' teachers at the university has contributed greatly to a sense of embarking on an exciting collaborative project.

VII. Discussion

Overall, we feel confident that cooperating teachers have learned the research-based teaching and management behaviors and will model the behaviors for prospective teachers and utilize them in coaching analyses. We believe this is one of the most important outcomes of the project since it will allow continuity between the instruction provided prospective students in the university setting and the instruction they receive in the school setting from cooperating teachers. The existence of a cadre of trained teachers in professional development schools will lead to reinforcement and extension of these practices.

In addition, although the instruction prospective secondary school teachers received was not as extensive as we had planned, we feel confident that they will use the research-based teaching and management concepts in their classrooms and will be able to analyze their own teaching behavior in terms of the concepts.

We realize our individual measures of project implementation and of project outcomes are somewhat weak. Further, the conclusions we draw may be perceived as "stretching things." That is why we rely on the overall pattern of results to support our conclusions. However, it should be noted that we based some of our judgments on real episodes of teaching and conferencing. Thus, it was not surprising, that, in the video taped study, for example, cooperating teachers and student teachers used other bases for analyzing teaching and for conferencing or that the teaching and management concepts of the workshops and courses/seminars were not used equally in the analyses.

The teaching and management concepts we emphasized provide only one perspective for making sense out of the complex act of teaching. One could choose to focus on content and its structure and development; on students' thinking and achievement and on other bases. We should not expect cooperating teachers, or student teachers, for that matter, to abandon all other bases in the analyses.

Similarly, that some concepts are used more than others should not be surprising. The limited use of preparation during analysis can be explained on the basis that the focus of the interviews was the classroom behavior of the student teacher. Planning prior to teaching was not triggered by the interview questions. The videotaping itself could have

influenced the use of procedural consistency because situations such as inappropriate conduct did not occur with normal frequency.

Despite the strengths and positive outcomes of the project, we were not successful in persuading the School of Education faculty as a whole of the value of the approach to teacher education we were advocating. Even the support of a respected advisory group of area teachers and the inclusion of one of these teachers as a full member of the Center for Teacher Education was not sufficient to effect substantial curricular and structural change in the School. Throughout our conduct of project activity, some faculty continued to object to our focus on instruction and management, arguing that that focus was perverse because it did not do justice to important characteristics of students (e.g., developmental patterns), of contexts (e.g., the context of social class disparity in American education), and of issues related to epistemology. Project associates did not succeed in drawing these critics into the effort, where they might have enriched the project as a whole through dialogue and constructive counter proposals.

While this has been a major disappointment and source of frustration for original Task Force members and for project staff, there is reason to be hopeful that the desired changes are soon to be accomplished. Indeed, the original intentions have never been repudiated or changed; it has been the implementation that has been much, much slower than expected.

Although curriculum and structural changes have not yet been implemented as designed, a cadre of School of Education faculty will continue to pursue the study and implementation of project-related ideas after the project ends. Currently, proposed syllabi for a general methods course and management course have been accepted by the Center for Teacher

Education; incorporation into students' programs of study still needs to be accomplished. The Center for Teacher Education, with continuing help from project associates, will provide institutional support for additional course development and collaboration informed by the project's focus on instruction and management.

The professional development schools will continue and will be better situated to work with prospective teachers because a number of the schools' faculty have received training provided by our workshops and are committed to the notion of collaboration. A UWM faculty member will continue to be assigned to each school although support provided by this project for the staff development activity will end.

VIII. Implications for Improving Teacher Education.

Based on the opinions of the advisory group members and the cooperating teachers who took part in the workshops as well as on the other data collected, we feel confident that the knowledge base used in this project can be useful to secondary school teachers and prospective teachers. This judgment of the utility of the knowledge base is important because most of the relevant research has been done in elementary schools. Of course, we do not have data on pupil outcomes. Obviously, extending the research to pupil outcomes in all secondary subject areas is necessary but, in the meantime, we are persuaded by the willingness of cooperating teachers and prospective teachers to use the behaviors based on existing research, by their readiness to describe and analyze teaching behavior in these terms, and by their assertions that the research base contributes to their effectiveness as teachers.

Another implication related to the content of the project concerns classroom management. The knowledge base for management drawn upon in our project work appeals strongly to secondary teachers in all content fields. The approach to classroom management associated with the work of Walter Doyle, and Emmer and Evertson, et.al., helps secondary teachers focus on instruction, rather than discipline, as a source of order. The teachers approve this instructional emphasis. They are relieved to learn that it does not admonish them to practice counseling psychology. At the same time, they acknowledge that it encourages an orientation to simplified academic work, and that this orientation might, de facto, conflict with goals of their espoused curriculum. Undue simplification or "proceduralizing" of content and instruction may result as teachers seek to ensure order by reducing uncertainty and risk in academic work. The tension highlighted by the latter point warrants extensive, continuing attention.

Overall, the project's focus on pedagogy is a needed complement to most of the recent national reports that have focused on the discipline-based substance of instruction as the route to secondary school improvement. We think it is important to train cooperating teachers and prospective teachers to become technically better teachers as well as better versed in their subject specialty. Further, we have become persuaded that pedagogical training can make teachers more reflective at the same time.

Finally, there are implications related to the program development process. We embarked on the project without a thoroughly articulated strategy of how to impact on the total program. We naively expected the reforms recommended by the Task Force on Teacher Education to be

implemented expeditiously and faithfully. We relied heavily on an overlap of project staff with Task Force and Center for Teacher Education membership. As the Center for Teacher Education was slow in coming on stream and then, once established, slow in bringing about change, we took steps to expand the project's reach to the faculty. We consciously sought to involve other faculty, especially those who taught foundation courses and those who were members of the Center for Teacher Education. We shared the needs assessment results with the entire faculty and had our invited "experts" make presentations to which the entire faculty was invited. The existence of our advisory group became widely known and the group's judgments were given wide publication. The Center for Teacher Education invited a teacher and a principal from the public schools to become full-fledged Center members. Nevertheless, the changes accepted in principle by the School of Education faculty when the Task Force report was accepted have not come about. Consequently, the work of the project was modified and the catalytic role we anticipated has not been totally successful.

The drawn-out development process may, in the long run, be productive, however. For example, the current draft of the syllabus for the general methods course contains a new strand devoted to inquiry teaching to complement the other strand on explicit teaching/direct instruction. Still, limiting the course to two basic models--a major struggle--reaffirms the belief that teaching the models requires substantial time to observe the models being implemented as well as substantial time for the students to practice them and receive feedback. Information from this project has served to help convince faculty of this requirement. At any rate, more faculty now accept the curricular structure and content that has evolved.

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Practice Profile

for

Incorporating Research Based Teaching Skills into a Field Based Secondary Teacher Education Program

Contract No. 400-85-1046
University of Wisconsin-Milwaukee
School of Education

September 29, 1988

Component 1: Collaboration with teachers

Ideal:	Acceptable:	Unacceptable:
Teacher Advisory Group exists and includes at least two area teachers in each core secondary school subject specialty.	Teacher Advisory Group exists and includes at least one area teacher in each core secondary school subject specialty.	No advisory group exists.
Advisory Group includes one College of Letters and Science faculty member in each core subject (math, English, etc.)	Advisory Group includes College of Letters and Science faculty members but not in each core subject.	Advisory Group includes no College of Letters and Science faculty members.
Advisory Group includes one School of Education faculty member in each core subject (math education, English education, etc.)	Advisory Group includes School of Education faculty members in all core subjects except one.	More than one core subject is not represented by a School of Education faculty member.
Advisory Group meets at least every other month for at least four hours per meeting.	Advisory Group meets at least two times each semester.	Advisory Group meets only once each semester.
Advisory Group has direct, substantive input into content and structure of methods courses and cooperating teacher workshops.		Advisory Group meets only to hear reports from School of Education faculty.
Advisory Group has direct, substantive input into program evaluation.		Advisory Group has no role in program evaluation.
All Advisory Group members receive training in all cooperating teacher workshops.	At least seventy-five percent of the Teachers and Education faculty on Advisory Group participate in all cooperating teacher workshops.	Less than seventy-five percent of the teachers and Education faculty on Advisory Group participate in the cooperating teacher workshops.

Component 2: Professional Development Schools

Ideal:	Acceptable:	Unacceptable:
Overall Policy Committee exists that includes faculty and administrators from both University and School District.		No overall policy committee exists.
Selection of schools and overall policy making is shared by representatives of both the University and the School District.		Selection of schools is done unilaterally by either the University or the School District.
One university faculty member serves as liaison for each professional development school and has the equivalent of one course released each semester for liaison responsibilities.	One University faculty member serves as liaison for two professional development schools and has the equivalent of one course released each semester for liaison responsibilities.	No university faculty person is assigned as liaison or the person is assigned without course release.
Each school has a building level professional development school committee that meets monthly with university liaison.	Each school has a building level professional development school committee that meets on an ad hoc basis with university liaison.	No building level committee exists or committee does not meet.
Each school has a class of pre-education field experience/ colloquium students assigned to the school for purposes of observation and other activities.	Individual students, but not a whole class of pre-education field experience/colloquium students, are assigned to school.	No pre-education field experience/colloquium students are assigned to the school.
Each school has at least twenty teachers who have taken the workshops on research-based teaching/management and on coaching/supervision.	Each school has at least ten teachers who have taken the workshops on research-based teaching/management and on coaching/supervision.	Less than ten teachers have received training in research-based teaching/management and coaching/supervision.
Each school has at least twelve student teachers who work under the direction of trained cooperating teachers.	Each school has at least six student teachers who work under the direction of trained cooperating teachers.	The school has less than six student teachers who work under the direction of trained cooperating teachers.
Trained cooperating teachers participate in the training of new cooperating teachers.	Trained cooperating teachers are involved in the design of the training for new cooperating teachers.	Trained cooperating teachers have no role in the training of new cooperating teachers.
Teachers share responsibility with university faculty for developing field based portion of syllabus for teacher preparation courses.		Teachers have no role in developing field based portion of syllabus for teacher preparation courses.
Teachers model research based teaching behavior for prospective teachers.		Teachers do not model research based teaching behavior for prospective teachers.

Component 3: Field based components in pre-student teaching courses

Ideal:	Acceptable:	Unacceptable:
Pre-education field experience/colloquium course requires atructured observations in schools, including observations of teaching and management behavior.		No observations of teaching and management behavior are required.
Observations are focused on specific aspects of school and classroom life using observation instruments.	Observations are focused on specific aspects of school and classroom life but students do not use observation instruments.	Observations in schools are not focused on specific aspects of school and classroom life.
Observations are used as focus for colloquium discussions and analysis.	Observations are infrequently discussed.	There is no discussion or analysis based on the observations.
Foundation courses (Cultural Foundations, Introduction to Learning and Development, and Principles of Classroom Appraisal and Evaluation) include observation and other field based activities (shadowing, interviewing, tutoring, etc.) in schools and classrooms.	Two of the foundation courses (Cultural Foundations, Introduction to Learning and Development, and Principles of Classroom Appraisal and Evaluation) include observation and other field based activities (shadowing, interviewing, tutoring, etc.) in schools and classrooms.	Less than two foundation courses include field based activities.
Observations are used as focus for foundation course discussions and analysis.	Observations are infrequently discussed.	Observations are not discussed.
Methods courses include observation in classrooms and opportunities for teaching at least a small unit of instruction.	Special methods courses include opportunities for teaching at least a small unit of instruction in the schools.	Methods courses do not include experiences in the schools.
Observations and other experiences take place in professional development schools.	Observations and other experiences take place in settings other than professional development schools that have some teachers who have taken the workshops on teaching and management.	Observations and other experiences take place in schools that do not have any teachers who have taken the teaching and management workshops.

Component 4: Research-based teaching/management content in general methods courses

Ideal:	Acceptable:	Unacceptable:
Two general methods courses are based on current correlational and experimental research on teaching and management.	Research based teaching and management content is integrated into special methods courses for each subject (English, social studies, etc.) rather than packaged as independent courses.	Content in methods courses does not draw on current correlational or experimental research on teaching and management.
The research-based teaching content is drawn from three models including direct instruction, inquiry and cooperative learning.	One additional model is included in the teaching course.	The general methods course covers a large number of models of teaching (more than four).
Content is taught to all teachers in training.	Content is taught to prospective elementary, secondary and special education teachers (not early childhood teachers).	Content is taught only to prospective elementary or secondary teachers.
Several video tapes of teachers using research-based teaching and management behaviors are available in all subject areas and used in methods courses.	Only one video tape of teachers modeling research-based teaching and management behaviors is available.	Video taped examples are not used.
Student use of research based teaching and management behaviors is monitored through observation, interviews and logs.	Student use of research based teaching and management behaviors of selected students is monitored through observation and interviews.	Use of the research based teaching and management behaviors is not monitored.
Methods courses include live demonstrations in the university classroom by teachers in addition to the course instructor.	Methods instructors model research based teaching and management behaviors during university classroom instruction.	Methods instructors do not model the research based teaching and management behaviors during the university classroom instruction.
Students are provided an opportunity to practice the research based teaching and management behaviors in micro teaching settings. Feedback is given.	Students are provided an opportunity to practice the research based teaching and management behaviors but no feedback is given.	No practice opportunities are provided.
Methods courses include observations in school classrooms.		Methods courses do not include observations in school classrooms.

Component 5: Workshops for cooperating teachers on research based teaching and management content and on coaching/supervision

Ideal:	Acceptable:	Unacceptable:
Content on teaching, management and coaching/supervision is taught to all cooperating teachers and to all university supervisors.	Content on teaching, management and coaching/supervision is taught to volunteer cooperating teachers and university supervisors.	Coaching/supervision is not provided or University supervisors are not included in workshops.
Workshops include opportunities for participants to see research based teaching and management behaviors modeled on videotape and in live teaching episodes.	No videotaped models are available.	No live or video taped models of research based teaching behavior and management are available.
Workshops provide opportunities for participants to practice the research based teaching and management behaviors and to receive feedback.	Workshops provide opportunities for participants to practice the research based teaching and management behaviors but without feedback.	Workshops do not provide participants the opportunity to practice the research based teaching and management behaviors.
Use of research based teaching and management behaviors is monitored through the development of a supervision plan and through observation.	Use of research based teaching and management behaviors is monitored through interviews and questionnaires.	Use of research based teaching and management behaviors is not monitored.
A specific workshop on coaching/supervision is available.	Coaching/supervision is integrated into other workshops.	

Component 6: Organizational Structure

Ideal:	Acceptable:	Unacceptable:
School of Education establishes a Center for teacher education to provide structure for sequenced instruction of prospective teachers on research based teaching and management behaviors.		No structure is available to coordinate offerings of several departments.
Faculty representatives of all components of teacher education program participate in Center.	Faculty representatives of all except two components of teacher education program participate in Center.	More than two elements of the teacher education program are not represented on the Center for teacher education.
Public school teachers and administrators are represented on the Center for teacher education program committee.		No public school teachers and administrators are represented on the teacher education program committee.
The Center for teacher education has curricular authority for the total teacher education program.	The Center for teacher education shares curricular authority for the total teacher education program with departments.	The Center for teacher education has no curricular authority for the total teacher education program.
The Center for teacher education coordinates all components of the teacher education program.		All components of the teacher education program are not coordinated by the committee.
Sufficient budget is available to support program development activities as well as ongoing program activities.	Sufficient budget is available to support ongoing program activities and "soft" money is available for program development activities.	Insufficient budget is available for ongoing program activities.

Project Demographics

Student Characteristics:	Cohorts of prospective secondary school teachers complete a cycle involving foundation courses, methods courses and student teaching.
Teacher Characteristics:	University faculty including School of Education and College of Letters and Science representatives in English, social studies, mathematics, science and foreign language. Secondary school teachers who serve as cooperating teachers for student teachers complete a set of three workshops. Approximately twenty teachers per workshop.
School District Characteristics:	Advisory Group representatives from four school districts, including the Milwaukee Public Schools with approximately 95,000 students and three suburban districts ranging from 1500 to 10,000 students.
Program Characteristics:	University students receive instruction in research based teaching (a synthesis of direct instruction, active teaching, mastery teaching and mastery learning) and classroom management. Cooperating teachers receive similar instruction as well as instruction in coaching/supervision.

Implementation Requirements

Costs:	Substitute teachers for teachers who attend advisory committee meetings; hourly time for teachers who attend workshops; released time for faculty to work in professional development schools.
Training:	A set of three, 15 hour workshops for cooperating teachers. Instruction in research based teaching and management for prospective teachers.
Materials/Equipment:	Videotaped examples of research based teaching and management and coaching/supervisory behavior.
Personnel:	Advisory group members, workshop faculty, professional development school faculty liaisons.
Organizational Arrangements:	Advisory group; Professional Development Schools overall policy committee; committees in each of the professional development schools; Center for Teacher Education.

Final Report

for

Incorporating Research Based Teaching Skills into a Field Based Secondary Teacher Education Program

Contract No. 400-85-1046
University of Wisconsin-Milwaukee
School of Education

September 29, 1988

APPENDICES

Appendix A

Report of the Task Force on Teacher Education

Principles for
Revision of Teacher Education Programs
at
U W M

The Task Force on Teacher Education

Salomon Flores
Nadya Fouad
Paul Haubrich
Bill Kritek (Chair)
Donna Lehr
Don Neuman
Gail Schneider
Mark Schug
Phil Smith
Jack Stillman
Tom Walton
Dick Western
Mary Lee Wright

Revised

October 29, 1985

Introduction

In its 100 years, the School of Education at the University of Wisconsin-Milwaukee has had a long history of initiating innovative programs. Originally funded by the Wisconsin Legislature against the wishes of the Wisconsin Normal School Board of Regents, the Milwaukee State Normal School was the first state-funded normal school, and incorporated several innovative features. For example, the campus laboratory school was a part of the Normal School from its inception in 1885, programs to train art and music teachers were organized in 1913, a program for training teachers in deaf education began in 1914, and a program for educating teachers about mental retardation was started in 1928. These programs were among the first of their kind in the country, and were maintained under the strong leadership of Frank E. Baker, one of the founders of the Progressive Education Association. In his 23 years as president of the Normal School and, later, the State Teachers College, Baker strengthened admissions requirements and tightened standards for graduation. By 1937, the Legislature authorized the granting of the Bachelor of Science degree in Education. A Master's of Science in Education was authorized in 1945. Even after the merger of the Wisconsin State College-Milwaukee and the Extension Division in 1956, which formed UWM, the School of Education maintained its reputation for innovation. The student-initiated, faculty-supported Institute in Education with its extensive field experience component is a case in point, as is the program in Language and Learning Disorders, which began in 1962.

Today teacher education programs face continuing criticism and recommendations bearing on a full range of governance and academic issues

(Holmes draft, 1985). Locally and nationally, critics charge that teacher training institutions admit weak students, offer course work that is not intellectually stimulating and demanding, fail to coordinate courses and field experiences, provide inadequate student monitoring and evaluation, and, accordingly, produce graduates who are unprepared to enter the field. These concerns have been voiced by Education faculty at UWM. They are reflected in portions of the Mission and Goals Committee Report of 1982 and in a subsequent faculty ranking of proposed goals which resulted in identification of reformed teacher education programs as the faculty's top priority.

The teacher education program at UWM is better than most. In proposing changes, therefore, we are not reacting to general criticisms of the field. We are engaging in self-evaluation, prompted by our own sense that continued improvement is warranted and possible. Toward this end we have examined scholarship about teacher education, examined our programs in depth, visited other teacher education programs, examined program reviews conducted recently by the DPI and the APCC, and spoken with national leaders in teacher education. In this context, we have identified five general problem areas that deserve considerable attention:

1) The UWM Teacher Education Program is a collection of disconnected courses and programs spread throughout the School of Education. For example, pre-education field experiences are not coordinated with subsequent field experiences or student teaching. As another example, there is no thematic relationship between what is taught in foundations of education courses and teaching methods courses. We do not have a coherent curriculum derived from an analysis of the pertinent scholarship.

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2) Systematic and efficient relationships do not currently exist between our teacher education programs and the school systems where students gain their field experiences. Cooperating teachers often are confused about the programmatic needs of students and in general may not be qualified to supply appropriate guidance. We do not make optimal use of field programs to extend our instruction.

3) Few opportunities exist to monitor systematically the progress of students through their professional program. Instead, students receive sporadic advising. They are rarely informed directly of their progress and cannot check themselves against agreed-upon standards in various phases of their education.

4) Our graduates say that they are poorly prepared for basic classroom management. School administrators echo this concern and add that beginning teachers are not well versed in the school effectiveness and teacher effectiveness literature.

5) Many graduates, especially at the elementary level, do not have adequate preparation in their subject areas. They often lack confidence in their own knowledge of content and thus tend to rely extensively on textbooks and other routine teaching approaches.

In our work we have found that research on teaching and learning, on schools and schooling, and on the training and socialization of beginning teachers has strong potential to guide the faculty in changing these aspects of our curriculum as well as the structure of our teacher education programs. Drawing upon this work and our collective experience, the Task Force on Teacher Education offers this report and its recommendations to the faculty of

the School of Education for consideration and discussion. We hope adoption takes place with all due speed.

A Research Base for Teacher Education

Teacher education exists on a developmental continuum from the entry level needs of the beginning teacher to the refinement needs of the mature teacher. Not surprisingly, the beginning or inexperienced teacher's needs vary from those of the mature teacher who has developed into a reflective and analytical classroom leader. While a school of education must address this continuum of developmental needs through a variety of programs, research, courses, and dissemination efforts, its program of preservice teacher education must recognize the basic and beginning needs of the newly graduated educators. Our report focuses deliberately on these entry-level needs of the new teacher.

Beginning teachers urgently need a repertoire of pedagogical skills that will enable them to survive, provide basic yet effective instruction for students, manage an educational environment effectively, and begin to embark on the process of growing and developing into the successful and mature educator.

A teacher education program exists within the larger framework of education in general which has as its objectives to develop knowledgeable decision makers who have a solid academic base in the letters and sciences, have knowledge of the process of inquiry, and are effective communicators. In addition, prospective teachers need an array of pedagogical skills and strategies (Joyce & Weil, 1980), knowledge of student learning and development

and an understanding of the cultural, social, political and organizational contexts in which schooling takes place.

In a review of the research on preservice teacher education, Koehler (1985) concludes that teachers are not well prepared in skills of classroom management and in instructional strategies. Koehler's work confirms an earlier study by Joyce, Howey and Yarger (1977) which showed that few schools, colleges or departments of education use training that ensures incorporation of teaching skills in the repertoire of new teachers. It is worth noting that preservice teachers do not even perceive a strong need to develop a knowledge base in instruction in order to become effective teachers (Book, Byers & Freeman, 1983).

Significantly, the report of the Wisconsin State Superintendent's Task Force on Teaching and Teacher Education (1984) and the University of Wisconsin System Teacher Education Task Force (1984) discuss several school improvement recommendations, but they are virtually silent on the need to improve teaching skills and strategies. Neither of the reports refers to the research literature on effective teaching. This is probably not surprising since national reports such as Boyer's (1983) and the draft report of the Holmes group (1985) also do not explicitly address the need to improve teachers' pedagogical skills.

According to Howey (1983), professional training amounts to almost 40% of a prospective elementary teacher's total undergraduate program, and less than 25% of the prospective secondary school teacher's program. Confrey (1982) notes that innovation in secondary teacher preparation occurs primarily in curriculum, with instruction receiving little attention. According to a

preliminary report of the Holmes Group (1985), "While prospective secondary teachers usually pursue requirements comparable to those of other student majors, their preparation is notably lacking in knowledge of teaching and learning."

Signficant research exists that links specific teaching skills with improved student achievement. Although most of this research has been done in elementary school settings, some of it is applicable to secondary schools as well, especially with regard to teaching of content that is "well-structured" (Rosenshine, 1985).

Evertson, Hawley and Zlotnik (1984) have identified five research based "core teaching skills" that they claim should be understood by all teachers. These core skills are:

(1) Maximizing academic learning time through providing students with sufficient opportunities to learn and coverage of academic content.

(2) Managing and organizing the classroom, including arrangement of the physical space, planning rules and procedures and teaching these to students, making clear the consequences and rewards for appropriate and inappropriate behavior, monitoring student work and behavior, keeping students accountable for academic work, providing time for explanation, rehearsal and feedback, planning lessons and providing for alternate ways of grouping students.

(3) Utilizing interactive teaching strategies which place emphasis on frequent lessons in which the teacher presents information, develops concepts through lecture and demonstration, and elaborates this with feedback to students.

(4) Communicating high expectations for student performance in which teachers maximize opportunities for both high and low achievers to participate in ways that facilitate this learning. This includes providing lows with ample opportunities to respond, answer questions and participate appropriately in lessons.

(5) Rewarding student performance so as to reinforce appropriate student behavior that is related to academic achievement and to provide students with feedback and knowledge of the results of their efforts. (pp. 28 & 29)

At UWM, analytic knowledge concerning elementary and secondary students is presented in courses in human development and human learning. Analytic knowledge concerning subject matter is presented in substantive courses in the student's major or area of specialization and in methods courses. But specific research-based skills of teaching are not adequately emphasized. This inadequate attention to teaching skills is disturbing not only because beginning teachers have need for them but because research in the last ten years has identified skills that are related to student learning. We will briefly elaborate on the research that supports direct, interactive teaching, establishing cooperative learning environments, managing classrooms and motivating students. Research in other areas, e.g. in developing inquiry skills, could be added. The point is not to focus on one perspective; it is to begin the task of using scholarship in curricular design.

Interactive teaching. Rosenshine (1983) found "a general pattern of effective instruction: an advantage to direct, explicit instruction--even explicit instruction in becoming independent learners; and the importance of over learning, particularly for hierarchically organized materials" (p. 337). These findings apply to older students as well as to elementary students.

From his review, Rosenshine developed a set of six instructional "functions" that are related to effective student learning:

(1) Daily review and checking previous work. The experimental studies by Good and Grouws (1979) and by Emmer et al. (1982) in elementary and junior high classrooms incorporated this skill.

(2) Presentation of material to as learned. Evertson, Emmer and Brophy (1980) found that effective junior high math teachers spent more time in demonstration than less effective teachers. Suggestions for effective presentation include presenting material in small steps, having many and varied examples of a specific nature and avoiding digressions.

(3) Guided student practice. Guiding practice through frequent teacher questions was related to student achievement in secondary schools in a study by Stallings, Needles and Stayrook (1979). One of the major findings of the Beginning Teachers Evaluation Study (Fischer et al. 1980) was that a high percentage of correct answers during guided practice positively correlated with achievement gains.

(4) Feedback and correctives. Research by Anderson et al. (1979) suggests that different types of teacher responses are appropriate depending on whether student answers are correct and quick and firm, correct but hesitant, incorrect but careless, or incorrect but lacking knowledge of facts or a process.

(5) Independent practice. Evertson et al. (1980) found that monitoring contacts with junior high students during seatwork should be relatively short.

(6) Weekly and monthly reviews.

Other studies and other variables support the importance of focusing on interactive teaching strategies via the six functions identified by Rosenshine. For example, Doyle (1983), after identifying four academic tasks (memory tasks, procedural or routine tasks, comprehension or understanding tasks and opinion tasks), recommends extending uses of direct instruction to the processes used by experts, e.g., by writers or mathematicians. As a second example, Cruickshank's (1985) concept of teacher clarity includes the Rosenshine functions. Cruickshank's research indicates that clarity is related to student achievement and satisfaction and that teacher clarity can be enhanced through training. For a third example, Stallings (1984), in a study of effective use of time in secondary reading classrooms, found that, on average, teachers spent only 12 percent of available time on interactive instruction, but the teachers with the greatest gains spent approximately 50 percent of their time on interactive instruction.

Cooperative learning. Another research-based instructional strategy, cooperative learning entails teaching practices that enhance achievement and

personal relationships, especially among handicapped children in mainstreaming instruction (Johnson, Johnson, & Maruyma, 1983). The work of Johnson and Johnson (1985 in press) and Slavin and Madden (1984) offer knowledge-based instructional methods outside the direct instruction orientation.

Directing a classroom environment. Doyle (1983) suggests that the first teaching task in classrooms is getting and maintaining the cooperation of students. Teachers must be skillful at "selecting and arranging activities and in monitoring and pacing classroom events" (p. 179). Failure to organize and manage the classroom effectively impinges on instructional activities with negative consequences for student achievement. Beginning teachers generally rate classroom management as their first concern (Doyle 1983).

Brophy (1983) provides a summary of the research literature, concluding that "an internally consistent, mutually supportive collection of ideas and techniques is now available for training teachers in effective classroom management" (p. 280). He notes that the underlying principles of classroom management apply to all grades, for boys and girls, and for various ethnic and social groups. A comprehensive approach to classroom management, Brophy says, includes the following:

(1) Preparation of the classroom as an effective learning environment.

(2) Organization of instruction and support activities to maximize student engagement in productive tasks.

(3) Development of a workable set of housekeeping procedures and conduct rules.

(4) Techniques of group management during active instruction.

(5) Techniques of motivating and shaping desired behavior.

(6) Techniques of resolving conflict and dealing with students' personal adjustment problems. (p. 282)

Effective teachers prevent problems from occurring; they do not merely cope with problems after they arise.

Motivating Students. In their review of research on motivation and achievement, Uguroglu and Walberg (1979) found that student motivation is a highly consistent positive correlate of academic learning. While many factors influence a student's motivation, Wlodkowski (1982) identifies several arenas in which teacher behavior can have a significant effect--e.g., in communicating expectations, in grouping students, in assigning different activities, in asking questions, in attending to students, and in providing reinforcement and feedback related to student achievement. These skills are teachable. Teachers can be helped, for example, to call on low achieving students as frequently as they call on high achieving students.

In summary, a body of research on effective instruction and classroom management exists. It will continue to develop. The School of Education faculty at UWM should use this research and the skills implied to help prepare prospective teachers for effective entry-level teaching

Recommendations

The following recommendations are stated as principles intended to guide action. If they are adopted, implementation will be easier in some areas than in others. Some recommendations could be implemented immediately; others would take much longer and might have to be modified substantially. The recommendations also would have to be tailored to specific programs. While each principle or standard may apply to the early childhood and secondary education programs, for example, the specifics related to implementation will

certainly be different. The Task Force recommends that the principles stated here should also apply to our post-baccalaureate programs. Currently, these programs enroll about 50% of our teacher education students. But the recommendations will have to be modified to fit the nature of the post-baccalaureate program. In general, then, we urge the adoption of these recommendations with the understanding that specifics will have to be worked out program by program.

Recommendation 1. Admission to teacher education programs should be based on an appropriate high school education and on demonstrated ability to pursue a rigorous academic program.

The admission criteria described below are based on several premises and assumptions. First, it is essential that teacher education students are proficient in English, mathematics, and communication (Joyce & Clift, 1984; Holmes draft, 1985). Second, the teaching profession and the rigor of our teacher education programs will require that we admit only academically well-prepared high school graduates. While national statistics indicate that applicants to teacher education programs have high school grade point averages equivalent to their non-education counterparts, the same studies indicate that these applicants lag significantly behind other declared majors in admissions test scores (National Commission for Excellence in Teacher Education, 1984). This discrepancy may reflect a lack of advanced high school courses in the programs of students who enter schools of education. Apart from the comparative question, students entering the teacher education programs ought to have studied advanced coursework in high school. It is essential that students admitted to the School of Education show a high likelihood of

completion of the program and have a serious commitment to a teaching career (Clark, 1984). Third, we believe that a strong academic background in Letters and Science disciplines is a prerequisite to high quality elementary and secondary teaching. Most experts agree that teacher education students need in-depth study in arts and science coursework (National Commission, 1984; Joyce & Clift, 1984). Our admission policies should reflect this need and provide some initial indication that the prospective student is ready to begin intermediate and advanced level courses in Letters and Science. Admission criteria follow.

1. HIGH SCHOOL PREPARATION.

   High school coursework that includes three years each of a foreign language, mathematics and science, and four years of English. College course work can substituted and exceptions will be made for those students who can provide other evidence of equivalent scholarship since the time of graduation.

2. LETTERS AND SCIENCE PREPARATION

   A university G.P.A. of at least 2.75 in Letters and Science coursework on a minimum of 24 credits, with no remaining University admission deficiencies.

3. SKILL PROFICIENCY IN ENGLISH, MATHEMATICS AND COMMUNICATION

   Proficiency in English, mathematics, and communication skills includes satisfactory performance on an appropriate English and mathematics proficiency test and on demonstration of communication skills by a grade of C or better in Communications 101.

We believe that these three admission criteria, employed by a faculty admissions committee, will increase the likelihood that the teacher education program at UwM will admit students with credentials comparable to or exceeding those of other academic majors at UWM. The chances that these students will succeed in the program, and later in the profession, should be substantially improved. However, it is possible that such standards might reduce the pool of teacher education applicants. The School of Education and the UWM administration should be aware of the program's emphasis on quality and should not penalize the program if course enrollments and/or program applicants decline.

Recommendation 2:. Recruitment and retention of minority students should be a high priority goal for teacher education programs at UWM.

Many colleges and universities are reporting declines in minority student enrollments. UwM and the UW System are among the institutions reporting these declines. In 1979, for example, UW-Madison enrolled a total of 32 new minority freshman students from Milwaukee public high schools; in 1985 the total was 19 (UW-Madison Office of the Registrar). In 1982, UWM enrolled 101 new black students from Milwaukee public high schools; in 1985 the total was 89. The number of blacks graduating from MPS high schools increased from 1491 in 1982 to 1514 in 1985 (UWM Office of the Registrar).

UWM currently enrolls few minority students in teacher education programs. However, circumstances in the metropolitan area make it clear the local school districts have an interest in hiring more minority teachers. The student population of the Milwaukee Public Schools is now approximately 50%

minority and MPS recruits widely for minority teachers. Other school districts in the Milwaukee metropolitan area also seek to desegregate their faculties. UWM should take steps to respond to these circumstances in the course of its teacher education program development.

We recommend, as a first step, creation of an Education pre-college program, analogous to the Gateway to Engineering and Science Technology program in the UWM School of Engineering or the Health Career Opportunities Program in the UWM School of Allied Health Professions. Pre-college programs of this sort have influenced minority student recruitment favorably in their respective units. They serve an academic skills development function and a career orientation function. MPS authorities might well be eager to cooperate with us in conducting such a program.

We recommend, second, designation of a teacher education faculty member, with appropriate support, to head up an office of minority student affairs. Working with the rest of the faculty and the school administration, this person would be responsible for coordinating internal support services for minority students and for leading the School in an effort to mobilize external support for financial aid, day care, work-study appointments, etc., for minority students who enroll in a UWM teacher education program. Providing assistance for future minority teachers is a large public responsibility that has been acknowledged widely. We can help by forwarding concrete proposals and by advocating for response from the profession and from the broader public.

We recommend, third, that the programmatic research agenda for the faculty of teacher education include questions related to the Milwaukee minority community perception of the UWM School of Education. Minority

teachers constitute the largest group of minority professionals in the city. Many of them have had some association with the UWM School of Education. We ought to know what their associations have been and how they view those associations. Inquiry of that sort might disclose ways in which we succeed and fail in addressing our efforts to potential and currently active minority students. Such information should be fed back into program development activity regularly

Additional sorts of effort will no doubt be identified as the faculty gains experience through its work with the precollege program, the campaign for external support, and the strand of self-study oriented to questions about our programs as minority students experience them.

Recommendation 3. Students should progress through the program in cohort groups.

Students will be admitted in cohorts during the first semester of their second year of full time study at UWM (or equivalent). As members of a cohort, students will belong to a social network from which they may expect social support. The social support that students receive increases their ability to cope with a variety of academic situations (D'Augelli, 1983) and increases the likelihood that they will persist in finishing their program (Sarason, Levine, Basham, & Sarason, 1983). In addition, cohort groups may increase students' commitment and achievement. Myrick & Erney (1979) found that "learning is more efficient when students assist other students and accept more responsibility for creating the learning climate" (p. 188).

Ideally, cohort groups will remain intact through the professional program to graduation and certification. Circumstances may prevent this, however; inability to perform successfully in various required aspects of the program, illness, or other extenuating circumstances may require that some students transfer to a later cohort. Cohort changes should be made only for exceptional reasons, however, as continuity and full-time student status are desirable goals, especially during the last two years of the program when students enter extensive field based experiences. The program will seek special work-study options for students who find full-time study financially difficult. If necessary, special cohort groups for part-time students may be developed, but the principles behind this recommendation should be retained.

Cohort groups may increase retention rates for minority students. Minority students have been found to achieve well as part of a collective (Diaz-Guerrero, 1978; Holtzman, 1978; Kagan, 1977). In addition, Hall (1984) found that, for minority and white men at UWM, the variable most strongly related to retention was full-time rather than part-time college enrollment. Recent statistics indicate that 87% of UWM secondary teacher education students and 77% of UWM elementary teacher education students are full-time students taking an average of 15.09 credits per semester.

Finally, the cohort group feature will help the teacher education faculty in its task of developing a focused, coherent curriculum. When students drop in and out of a program unpredictably, and complete its requirements in varying sequences, it is impossible to assess program effects. The more patterned progress of cohort groups will foster programmatic planning and evaluation.

Recommendation 4. The progress of students through teacher education programs should be monitored systematically.

Program faculty should monitor the progress of students at several points in the program. This monitoring will take the form of comprehensive examinations, observations of performance in the field based aspects of the program, and periodic interviews. Decision points will be established to determine student continuation in the program. These decision points are based on several assumptions.

First, students should enroll in advanced coursework outside the School of Education (Clark, 1984, Koehler, 1985) and make satisfactory progress according to program timetables.

Second, the Education faculty should have some assurance that the prospective teacher has successfully studied the knowledge base in foundations and methods of teaching. Progress through the field-based sequence should be coordinated with, and dependent on, continued study of the knowledge base, with applications that cumulate in controlled situations--e.g., in micro-teaching in a university setting, later in the teaching of brief lessons in a classroom, etc. It is essential that prospective teachers be able to apply their professional knowledge base and content exposure effectively in the classroom. During student teaching and other school based experiences, these skills should be monitored continually, and appropriate concurrent instruction should be provided as a regular part of the professional program.

The following continuation points/decision criteria should be maintained for teacher education students:

1. LETTERS AND SCIENCE PREPARATION

Cohort advisors will conduct a yearly review of non-School of Education academic progress. Progress toward the following goals will be especially monitored:

A. Maintenance of a 2.75 grade point average in courses outside the School of Education.

B. Evidence of successful completion of advanced courses outside of the School of Education. A minimum number of credits of Letters and Science coursework at the 300 level or above will be required for graduation. The exact number of credits should be set during implementation. Student progress toward this requirement will be monitored.

2. COMPETENCE IN PROFESSIONAL KNOWLEDGE BASE

The following graduation requirements will be maintained:

A. Professional preparation coursework must be completed with a cumulative grade point average of 2.75 or better. All courses must be completed with a grade of C or better.

B. Following completion of the professional preparation courses in foundations and methods, students will be required to take a written comprehensive exam. The exam will be constructed from an item pool developed by teacher education faculty and derived from agreed upon content. Initially, the purpose of this exam will be to help the faculty articulate the curriculum and establish base line data. Eventually, when the faculty have studied the results and have developed a valid and reliable instrument, the exam may be used for monitoring purposes.

3. COMPETENCE IN TEACHING SKILLS

The student will be required to study and demonstrate applications of various teaching practices during the school-based experiences provided by the program. Structured observation schedules will be completed by the cooperating teacher and teacher education faculty.

Each of these monitoring points will provide a rigorous evaluation point for each student. For students who fail to perform successfully at a given point, the program should provide subsequent opportunities to re-do a phase of instruction. Of course, given the structure of the proposed program, this may mean that some students must change cohort groups to complete their requirements, and that some will not complete their work in the four (or five) years expected for the typical student.

Our purpose here is not simply that program faculty look over the shoulder of prospective teachers in order to identify their deficiencies and weed them out. Monitoring should help faculty to provide the additional instruction students need to improve their skills and understanding. Coaching (Joyce & Showers, 1982; Berliner, 1982) is an effective method of helping teachers change their professional behavior. Coaching requires demonstration, careful observation of practice, and timely feedback to the teacher. The proposed program takes as central the need to develop an effective pattern of coaching in the effort to link academic study with practice in field settings. Skill development is essential to reflection about wise uses of skills.

Recommendation 5. Field experiences should be structured and integrated with professional education courses.

The problem of linking theory with practice is critical to teacher education. Recognizing the centrality of this problem, Huling and Hall (1982) recommend "early and continuous field experiences" for preservice teachers. It is only through field experience, for example, that prospective teachers can become aware of the constant interruptions that plague teachers and can learn how to protect instructional time and work around the interruptions. Vaughn (1984) notes further the importance for prospective teachers of knowledge about the teaching context--i.e., about district and school organizational arrangements, about parental and community influences, and about the nature of so-called "effective schools." He urges teacher educators to "provide prospective teachers with a more complete and accurate understanding of what to expect in schools and why [so] they will possess a basis for working in a positive fashion for improving those conditions" (p.5). Vaughn's recommendation supports the need for a strong field component in teacher preparation programs.

We emphasize, however, that experience in classrooms will not in itself improve prospective teachers. In fact, some evidence shows that preservice classroom experience has negative effects. For example, Hoy and Rees (1977) found that student teachers became more bureaucratic and more custodial. And Feiman-Nemser and Buchman (1985) found that "Without help in examining current beliefs and assumptions, teacher candidates are likely to maintain conventional beliefs and incorporate new information or puzzling experiences into old frameworks" (p. 29). Clearly, productive field experiences require

university instructors and cooperating teachers who are willing and able to help the prospective teachers to develop skills and to examine their experience critically. The purpose of field experience is not to shock students or to socialize them, but to help them attend to important components of the profession to which they aspire, to integrate their knowledge and skills, and to practice these skills in real situations.

We recommend three distinct phases of field experiences in the teacher education programs. The first experiences have traditionally been seen as a mechanism to help students decide whether the profession is right for them. Exposure to diverse pupil groups has been a second objective of the initial field experience. These objectives have merit. But the primary objective of the first field experience in teacher education should be to enable students to study schools and classrooms and reflect on what they observe in light of the teacher education curriculum. To this end, prospective teachers should be trained in observation skills and in the use of structured observation instruments. These instruments should then be used to help prospective teachers see how teachers start a lesson, manage a classroom, praise students, interact with their colleagues, etc. Data from recorded observations should serve as content in concurrent professional courses.

A second phase of field experience occurs during later foundation and methods study. Through field-extended study, students should be given the opportunity to observe principles demonstrated in classroom situations. Lessons conducted in the schools by university faculty or master teachers can be discussed and analyzed. In later phases of the program our students should tutor, work with small group situations and teach parts of lessons to a whole class.

Structured observation of these experiences by faculty, cooperating teachers or other university students should be an integral component of these courses and should be followed by feedback, analysis and additional instruction.

The third phase of field experience is student teaching. While this phase is generally viewed by teachers as the most rewarding aspect of their preservice education, there is good reason to examine its structure and process carefully. In a 1973 review of the research, Peck and Tucker concluded that "by the end of student teaching, there are some almost universally reported decrements in attitude and in teaching behavior, as compared with the starting position of students prior to their field experience" (p. 967). In what is probably the most intensive study of student teaching conducted to date, Griffin (1983) provides a description of the experiences of almost 100 student teachers and cooperating teachers and 17 university supervisors. His list of conclusions suggests a framework for designing, implementing and evaluating the student teaching component of our programs. He found that:

1) The research based knowledge linking teaching behaviors with pupil outcomes was not utilized.

2) Cooperating teachers and university supervisors attempt to create a "satisfying" set of learning opportunities but do not act from a set of carefully articulated performance standards for professional practice.

3) Student teachers were exposed to situation-specific teaching strategies rather than a range of options from which to choose.

4) Student teachers, cooperating teachers and university supervisors did not share a common understanding of policies, expectations, purposes and desirable practices.

5) Student teaching was not integrated substantially or ideologically into the rest of the professional program of the universities.

6) There were few policy, practice or personal linkages between the university and public school settings.

7) Student teacher-cooperating teacher dyads were isolated from each other and individuals were isolated from other individuals.

8) The "gatekeeping" function of student teaching was operating only minimally.

Our teacher education curriculum must be embodied in a definite sequence of field-based instruction for our students. These experiences will include early, structured observations, controlled small group and whole class instruction for short periods of time, along with coaching, and, eventually, full responsibility for a class during student teaching. This sequence requires close cooperation with the public school staff and administration.

At the heart of our effort to make field-based instruction a significant element of our teacher education program is the close working relationship between the School of Education and schools in the metropolitan area. Efforts are already underway to utilize Riverside-University High School as one setting where a program can be developed to improve the clinical experiences of prospective teachers, enhance the professional development of secondary school teachers, and attract more minority young people into teaching. Similar arrangements should be established with other MPS secondary and

elementary schools and with suburban secondary and elementary schools. A long-term possibility is that we can work with exemplary schools and master teachers as adjunct clinical faculty of our program.

Recommendation 6. Teacher education students should have strong academic preparation in Letters and Science coursework.

This recommendation is made for two main reasons. First, techers must know the subject matter they are to teach. For elementary school teachers this entails breadth of study; for secondary teachers it entails completion of at least one major. Second, teachers should have good academic background knowledge and good critical judgment rooted in disciplined academic reasoning. They should know more than they teach. They should know too much to be limited to textbooks. Thus various proposals call for all prospective teachers to complete an academic major, and the Holmes group (1985) would require elementary career teachers to complete one major and four minors covering the areas of language and literature, mathematics, science, social science and the arts.

Of course it is true that content by itself is not sufficient. Evertson, Hawley, and Zlotnick (1985) have reviewed research which suggests that in the absence of good instructional capabilities, there is "little reason to believe that increasing teachers' knowledge of their subjects beyond that typically required for certification will significantly increase teacher effectiveness" (p. 6). Nevertheless, we are troubled by the proliferation of introductory courses in the liberal education component of our students' programs. While our core curriculum does require breadth, not all our programs require

advanced courses in the liberal arts. To address this problem, the elementary education program should require all elementary education students to complete two minors in subjects taught in the schools. Other programs also should check their requirements against the two main criteria discussed above--i.e., study in content to be taught and in ample background knowledge.

An analysis of recent graduates of our elementary and secondary programs revealed that our students currently complete an average of 143 credits. The number of credits is nearly identical for transfer and non-transfer students. With careful advising, students might complete a second minor without greatly exceeding this total.

Recommendation 7. Approximately six credits of professional education should be devoted to general methods courses in which research based teaching skills are taught. This addition should not increase the total number of credits currently required in the professional education component of our programs.

As indicated earlier in this report, substantial research points to specific teaching skills and strategies that prospective teachers should master before beginning their teaching careers. Most of this research is correlational, although significant experimental studies now support some of the correlational findings. Additional experimental studies will certainly be conducted as the profession more fully develops the science of the art of teaching. The program proposed in this document should consciously use the developing research base to educate prospective teachers.

Since many research based skills and strategies cut across curriculum areas, we propose reducing the credits in elementary methods courses in order to reduce redundancy. Some of the theory underlying teaching strategies is

currently contained in foundation courses and seems more appropriately linked with general methods course work. Reducing the credit equirements in foundation courses and subject specific methods courses will enable the general methods course work to be included in the program without raising total credits required.

We envision the general methods courses to be integrally linked to intense practice of skills and strategies using micro-teaching and short lessons in school-based settings. A sequence of instruction in a teaching skill, practice, feedback and additional instruction is of the essence of the general methods course. Gage and Winne (1975) comment about the power of this approach: "Evidence for the efficacy of feedback about teaching performance is fairly consistent. When the information is explicit, clear, and keyed to specific aspects of teaching behavior, feedback results in improvement in the trainees' ability to perform according to a model of teaching" (pp. 160-161).

Recommendation 8. Teacher education programs should be carried out in a climate of critical inquiry and problem oriented research related to teaching and learning. To accomplish this, an emphasis on research will permeate all aspects of the teacher education program.

For students, the climate of inquiry implies a study of current research and a hypothesis-testing approach to teaching, with tutelage from faculty who are active researchers. Therefore, throughout their preparation programs, students will become familiar with and make use of past and current research pertaining to effective teaching and student learning. In order to understand the relevance and applications of the research findings, students will be guided by the faculty in the analysis and synthesis of conclusions and in the

formulation of appropriate field research projects. An emphasis on the value and application of research is expected throughout the entire preparation program, not in any single course. The program will require assignments that cut across subject areas. These integrative assignmenhts will help students to be reflective (Zeichner, 1983) and to tie together what they have learned in individual courses. Such projects should be incorporated carefully into academic study and field experience. They should not simply be added on as separate, library-oriented term papers.

Faculty are expected to incorporate research findings into their teaching and preparation activities. An on-going task for the faculty will be to use research findings in developing the curriculum. In addition, involvement in the program should provide faculty with opportunities for conducting their own research on teaching, learning, school organization, etc. Administrators and teachers within cooperating schools will be informed of the research emphasis within the program and their assistance will be sought in modeling research principles, conducting research studies, and collecting data. This arrangement will provide faculty members with invaluable access to educational organizations and classrooms. In many cases, faculty research can be helpful to schools as they seek to improve their educational programs.

To bring about the scholarly ethos envisioned here, the teacher education faculty should undertake at least two institutional steps: (1) to formulate a research agenda linked to program goals; (2) to develop procedures for using knowledge base criteria in course approvals and other program development activity. Whether the scholarly ethos is realized will depend on collective effort as well as effort by talented individuals.

The cooperative research emphasis, within the program and within schools, should instill in students an appreciation and understanding of the value of educational research in the practice of teaching. Having been exposed to current research, to field-based research, and to faculty and staff members who model research principles, students should exit their programs with a commitment to furthering their teaching and inquiry skills.

Another aspect of the research dimension will be internal to the program. The revised programs should be monitored closely through formative and summative evaluation. Relevant data should be identified and collected during implementation with the intention of strengthening and improving the programs. These data might include profile and demographic data pertaining to program participants, achievement data, perceptions of program participants by cooperating teachers, supervisors, and administrators, student assessments of programmatic strengths and weaknesses both during and after program participation, skill inventories, placement data, performance assessments of participants by employing supervisors after placement.

Recommendation 9. The principles proposed here should be reflected in all teacher education programs for students seeking initial certification.

The recommendations of more rigorous admission procedures, careful monitoring of student progress, progression in cohort groups, utilization of structured field experience, more extensive skill training and a scholarly ethos seem essential to improve our teacher education programs. Consequently, we recommend that the previous recommendations apply to all programs for undergraduate students seeking initial certification in the early childhood

education, elementary education, secondary education, physical education and exceptional education programs. We anticipate and, in fact, encourage tailoring the recommendations for each program. Further, we recommend that post-baccalaureate programs be revised according to the principles inherent in these recommendations.

We are under no illusions that these recommendations will create the one best teacher education program. Indeed, we assume that programs based on the principles outlined above will be scrutinized and modified continually. However it is vitally important that this School of Education stand for something--and something of rigor and quality--in the eyes of our colleagues, our students and the public.

Recommendation 10: A department of teacher education should be established.

Teacher education is a major function of the School of Education. The structure of the School ought to reflect that function distinctly. But as things stand now, function and structure are poorly related.

Part of the problem is organizational: we are not set up well to handle institutional tasks associated with teacher education. Staffing decisions that affect teacher education are handled in four departments, ordinarily without coordination. Planning documents come to departments, and departments send back plans separately, so that, for example, extra effort is required in order to take programmatic approach to planning for instructional technology or early childhood education. Field experience programs operate out of three departments, making considerable demands for cooperation upon area schools; but the field experience programs are not coordinated administratively.

Program reviews--e.g., by the Department of Public Instruction and the UWM Academic Programs and Curriculum Committee--address program problems, but program responses are difficult to muster because the problems don't fall into any single governance structure. These circumstances have harmful effects. When uncoordinated field placement requests come in to school principals, for example, they may get confused and irritated, and we may have to spend time sorting out the confusion. Or when program problems fall outside any department's jurisdiction, given the present structure, administrative action may finally be taken to resolve an academic problem. The recent move of early field experience to the School Advising Office is a case in point.

A second part of the problem is curricular. Teacher education courses are currently taught in four departments, and the content of the courses is not linked thematically or derived from any underlying set of shared program objectives. We work from no plan to help students integrate professional content and use it progressively to develop better skills and understanding of teaching as they move from one program component to the next. It is a problem within departments as well as one across departments. The result is that students find it easy to discount the value of our coursework and to say later that they didn't learn anything in the program until they got to student teaching.

To resolve these organizational and curricular problems, we recommend creation of a single governance body for teacher education programs--a new department of teacher education that would be the curricular home of all teacher education courses. A new department would not guarantee any particular outcome. No organizational change can guarantee a qualitative

outcome. But the new department would at least remove obstacles that now stand in the way of curricular coordination and effective handling of programmatic business. Moreover, a new department rather than an institute or a center has the best chance of surviving as a unit to implement the principles proposed here. The issues of tenure and merit alone suggest that teacher education faculty should be reorganized in a department, not a center or an institute.

Creation of a new department will have implications for all faculty in the School and may in fact lead to other departmental changes. We choose not to make recommendations about details of implementation or broader prospects for change. Should the faculty move forward in this direction, however, we do recommend that the new program be designed to accommodate full-time appointments, part-time and fixed-term appointments, and adjunct appointments worked out in cooperation with MPS and other school districts interested in cooperative relations with us. The academic expertise needed to develop focused, coordinated programs should be drawn from faculty throughout the School. We recommend further that the new department house an office of field-based instruction, to coordinate field placements and supervision and, generally, to serve as a single liaison agency for our work with the schools. Finally, as noted in Recommendation 2, above, we recommend that the School of Education establish an office of minority student affairs. This office would seek primarily to improve minority student recruitment and retention in teacher education programs and might, therefore, be housed in the teacher education department. On the other hand, the problems this office will address may be school-wide, and a non-departmental focus for it also might be appropriate. Further discussion is needed on this point.

A new department will signal to everybody that we are not about business as usual. The excitement and freshness of the venture may help to invigorate the whole School.

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Appendix B

Descriptions of Cooperating Teacher Workshops

Summer Workshop for Cooperating Teachers

Research-based Effective Teaching

Purpose	To familiarize participants with the UWM School of Education's efforts to improve its teachers education program. To help participants carry out the cooperating teacher instructional function in a way that's compatible with our program. To provide participants with the knowledge and skill needed to carry out the instructional role of the cooperating teacher. To get feedback from our cooperating teachers on the content of, and approach to, our research-based effective teaching course.
Dates & Times	Monday-Thursday, June 13-16, 1988, 8:00 - 11:30 AM
Credit	One graduate credit
Participants	Enrollment limited.
Site	To be determined but most likely Milwaukee Area Technical College: West Campus, 1200 South 71st Street, West Allis, WI
Stipend	$100.00
Instructor	John Zahorik

Research-based Effective Teaching

Session One:

Monday, June 13

8:00 - 10:00 AM	Introduction to project and school curricular change
10:00 - 11:30 AM	Introduction to research on student teachers and student teaching

Session Two:

Tuesday, June 14

8:00 - 10:00 AM	Continued examination of the research-based effective teaching
10:00 - 11:30 AM	Models of research-based teaching

Session Three:

Wednesday, June 15

8:00 - 10:00 AM	Practice of research-based effective teaching skills
10:00 - 11:30 AM	Issues in using research-based effective teaching

Session Four:

Thursday, June 16

8:00 - 10:00 AM	Continued practice of research-based effective teaching skills
10:00 - 11:30 AM	Implications for supervision/clinical instruction: Planning/Observing/ Conferencing/Evaluating/Cooperating with university supervisor

The teaching skills to be covered are applicable to all subject areas. However, practice sessions will be organized, as much as possible, according to specific subjects. A set of readings will be provided prior to the start of the workshop.

There will be an outcome requirement, a product, such as a 3-4 page paper that may be an action plan that will embody how the participant sees his/her role as a cooperating teacher.

Summer Workshop for Cooperating Teachers

Research-based Approaches to Classroom Management

Purpose	To familiarize participants with the effort of the UWM School of Education to improve its teacher education program. To help participants work compatibly with the UWM program in carrying out their instructional work with student teachers. To provide participants with knowledge about research on effective classroom management. To engage participants in planning for research-based management techniques.
Dates & Times	Monday-Thursday, June 20-23, 1988, 8:00 - 11:30 AM
Credit	One graduate credit
Participants	Enrollment limited.
Site	To be determined but most likely Milwaukee Area Technical College: West Campus, 1200 South 71st Street, West Allis, WI
Stipend	$100.00
Instructor	Dick Western

Research-based Approaches to Classroom Management

Session One:

Monday, June 20

8:00 - 9:45 AM	Introduction to the UWM project Introduction to research on student teachers and student teaching
9:45 - 11:30 AM	The Focus of this Workshop: Research on Classroom Management The Relationship of Instruction to Management

Session Two:

Tuesday, June 21

8:00 - 9:45 AM	Management Problems in Secondary Classrooms
9:45 - 11:30 AM	Research-based Concepts and Practices

Session Three:

Wednesday, June 22

8:00 - 9:45 AM	The Teacher Education Problem: Given the research on classroom management, what do we do differently in working with student teachers?
9:45 - 11:30 AM	The Teacher Education Problem, continued

Session Four:

Thursday, June 23

8:00 - 9:45 AM	Presentation of Drafts: Materials for use with student teachers
9:45 - 11:30 AM	Presentation of Drafts, continued

Readings will be provided.

Each participant will write a plan for use of research-based management principles with student teachers.

Summer Workshop for Cooperating Teachers

Coaching of Prospective Teachers

Purpose	To provide participants with principles of adult development and adult learning. To help cooperating teachers develop skills needed for the observation and analysis of classroom activity. To help participants develop skills of interpersonal communication. To provide participants with the opportunity to practice observation and analysis and conferencing skills on video-taped lessions and with colleagues.
Dates & Times	Monday-Thursday, July 11-14, 1988, 8:00 - 11:30 AM
Credit	One graduate credit
Participants	Enrollment limited. Participation in UWM workshops on effective teaching and classroom management required.
Site	To be determined but most likely Milwaukee Area Technical College, WEst Campus, 1200 South 71st Street, West Allis, WI.
Stipend	$100
Instructor	William Kritek

Coaching of Prospective Teachers

Session One:

Monday, July 11

8:00 - 9:45 AM	Background of workshop; Preview of topics to be covered
9:45 - 11:30 AM	The nature of coaching; recording classroom behavior

Session Two:

Tuesday, July 12

8:00 - 9:45 AM	Adult development and adult learning; Practice note-taking on video-taped lesson
9:45 - 11:30 AM	Communication skills; presentation and practice

Session Three:

Wednesday, July 13

8:00 - 9:45 AM	Practice observation and conferencing in groups; focus on analysis of lesson
9:45 - 11:30 AM	Focus on conference; analysis of conferencing skills

Session Four:

Thursday, July 14

8:00 - 9:45 AM	Practice in groups with feedback provided to coach
9:45 - 11:30 AM	Continued practice, review

Readings will be provided.

Appendix C

Forms to Record Pedagogical Knowledge, Ideas and Insights

Methods Course Instructor_____ To be collected on_____

Please use this form to record the pedagogical knowledge, ideas and insight you have acquired in the past two or three week period. Make a distinction between what you learned in a methods course you are taking (subject methods, reading, media, etc.) and what you learned through observation or practice during field experience. Separate the knowledge, insights, ideas into categories of instruction, management, subject matter content and "other", which can be used for other notes or comments. Focus on principles of action or "rules" or generalizations for your entries and make a brief notation about where you learned the information or developed the insight.

I. Instruction (learning how to teach)

A. What was learned in a methods course

B. What was observed during field experience

(over)

II. Management (learning how to manage classrooms)

A. What was learned in a methods course

B. What was observed during field experience

III. Content (learning what to teach)

A. What was learned in a methods course

B. What was observed during field experience

IV. Other notes

A. What was learned in a methods course

B. What was observed during field experience

Student Teaching Subject_____ To be collected on_____

Please use this form to record the pedagogical knowledge, ideas and insight you have acquired in the past two or three week period. Make a distinction between what you learned in the seminar or other classroom course you are taking, what you learned from your cooperating teacher and what you learned from reflecting on your own teaching. Separate the knowledge, insights, ideas into categories of instruction, management and subject matter content. Focus on principles of action or "rules" or generalizations for your entries and make a brief notation about where you learned the information or developed the insight.

I. Instruction (learning how to teach)

A. What was learned in seminar or in a classroom course

B. What you learned from your cooperating teacher

C. What you learned through reflecting on your own teaching

(over)

II. Management (learning how to manage classrooms)

A. What was learned in a seminar or in a classroom course

B. What you learned from your cooperating teacher

C. What you learned through reflecting on your own teaching

III. Content (learning what to teach)

A. What was learned in a seminar on in a classroom course

B. What you learned from your cooperating teacher

C. What you learned through reflecting on your own teaching