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The Need for a New Model of Teacher Supervision & Evaluation: The Implications of Identifying Reflection as an Explicit Goal of Teacher Education Programs

by

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THE NEED FOR A NEW MODEL OF TEACHER SUPERVISION & EVALUATION:

THE IMPLICATIONS OF IDENTIFYING REFLECTION AS AN

EXPLICIT GOAL OF TEACHER EDUCATION PROGRAMS

by

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Overview of This Paper

Emergence of alternative goals for teacher education programs. Historically, instructional skills performance and teacher socialization have predominated as the two major goals of supervision and evaluation in preservice teacher education. Recently, however, this monolithic view has given way to the recognition that alternative goal structures can exist for such programs today. Zeichner (1983), for example, has identified five alternative paradigms for categorizing the goals of teacher education programs: academic, behavioristic, personalistic, traditional-craft, and inquiry-oriented. Similarly, Zimpher and Howey (1987) have written of the alternatives provided by the technical, clinical, personalized, and critical views of teacher competence. Each of these has its own contrasting vision of what an "effective teacher" is and does.

Most recently, an emphasis has been placed on the new (or re-discovered) paradigm of teacher reflection as an expression of what we would desire to better understand and develop in teachers through our teacher education programs (e.g. Dewey, 1933; Goodman, 1984; Korthagen, 1985; Ross, 1987; Zeichner, 1981-82; Zeichner & Liston, 1987).

Unfortunately, popular use of the term today is so fuzzy that it has "become sloganized to the point where it means many things to many people" (Goodman, 1984, p. 21). It appears to hold several dozen different meanings for teacher educators around the country who are talking about it. Thus, with so much current talk of teacher reflection, it becomes important to critically examine and clarify the different meanings which people have for the term "teacher reflection". The papers prepared for this conference should assist by stimulating (dare we say it...?) much reflective dialogue in this area. Later in this paper, we will present our understanding of this term as it relates to our proposed "teacher as reflective decision-maker" model for clinical instruction and teacher evaluation occurring within such teacher education programs.

Teacher reflection as a conceptual template in supervision/evaluation. Even more to the point we wish to address in this paper, however, is the assertion that, whatever is meant by the phrase "teacher reflection", it should form the specific nucleus of what this type of teacher education program teaches, models, and rewards through its instructional content and pedagogy.
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provided to its students. In addition, this understanding of the "reflective teacher" should also coincide with the judgment criteria which these teacher educators hold as important and, indeed, actually use in supervision and evaluation of their students.

While this point about teacher reflection functioning as a conceptual template seems to be obviously sensible, it is not so easily or consistently implemented in our loosely structured teacher education programs. We know from constructivist psychology that the functional meanings of the concept "teacher reflection" actually reside in the minds and actions of individual faculty and students and in the program curriculum. These people's cognitive schemata contain the desired criteria or attributes, accompanied by their meanings and their relative weights, which each individual believes would characterize competence as a reflective teacher. In most situations, however, these program goals and their related evaluative judgment criteria are fuzzy and individually-constructed concepts, somewhat inaccurate in content, and only implicitly held in each person's mind.

However, whether such concepts are correct or incorrect, vague or precise, they do serve (albeit unconsciously in most cases) to guide each teacher educator's instructional and evaluative interaction with students. Such criteria are at the heart of all formative or summative judgments made in any type of teacher education setting (e.g., campus courses, early field experience, student teaching, induction, or staff development) by university faculty, cooperating teachers, and school administrators.

More specifically, we know from social and cognitive psychology that each person's cognitive schema of "what a reflective teacher is" is central to all of the on-going interaction between the supervisor(s) and the supervisee (Simmons, Moon, & Niemeyer, 1987). This cognitive schema is manifest in various ways in the supervisory process---e.g., in the specific goals, questions, explanations, tasks, observations, informal conversations, feedback conferences, seminars, evaluation reports, and feelings of overall satisfaction or dissonance which occur for each individual. Similarly, we can say that the supervisee's cognitive map functions as a professional development perceptual framework, causing her/him to accept or discard ideas and opportunities as relevant or irrelevant for professional growth.

In other words, this conceptual template of the "effective teacher" influences what is perceived as pertinent evidence as well as what are viewed as viable growth opportunities in teacher supervision and evaluation. Contrasting cognitive maps of effective teaching can result in different people actually "seeing" different evidence and, and hence, forming different judgments of the teacher's competence.

In these ways, then, such a cognitive map---without regard for its validity or preciseness---functions as a template for both clinical instruction (i.e., formative evaluation) and for teacher evaluation in a summative manner.
Furthermore, this conceptual template perspective on the judgment criteria used in teacher supervision and evaluation can provide us with a new point of view on the problem of the relatively weak program outcomes often reported for participants in our typically loosely coupled teacher education program structures.

**Focus of this paper.** In terms of the broader picture of education today, we are coming to place a great emphasis on the complexities of information processing psychology and of judgmental decision-making for teachers (Clark & Peterson, 1986; Munby, 1982; Shavelson & Stern, 1981; Yinger & Clark, 1983) and for other professionals (Schon, 1983, 1987) and adult learners (Boud, Keogh, & Walker, 1985).

Our paper now seeks to place this same spotlight on the evaluative judgment criteria and practices of instructional supervisors in teacher education programs which have teacher reflection as an explicit goal. We will present our ideas in the form of an analytical essay exploring the theoretical and speculative implications of positing teacher reflection as an explicit goal of teacher preparation. We are also simultaneously involved in operating and evaluating two such teacher education programs [Appendix A] and in researching supervisory judgment criteria and processes [Appendix B]. While these experiences and data will not be reported herein, they nevertheless have also significantly shaped our thinking about this topic [footnote 1].

Earlier research has shown that cognitive mapping, structured interviews, and content analysis of written and oral artifacts methodologies can be fruitfully used to investigate university supervisors' tacit judgment criteria and how they are used in the process of supervision and evaluation (Simmons, Moon, & Niemeyer, 1987). Here, we wish to explore these parallel issues with a particular focus on the nature of supervision and evaluation occurring in a reflective teacher education program.

Currently, teacher reflection can be found as an explicit goal of foundations and methods courses and early field experiences (such as in our CITE project at Eastern Michigan University and at the University of Florida) as well as in student teaching experiences (such as at the University of Wisconsin/Madison). The OERI projects represented at this conference share such an interest in enhancing teacher reflection in their participants. However, preliminary research studies (Krogh, 1987; Ross, 1987; Weade, 1987; Zeichner & Liston, 1987) indicate that it is difficult to foster such teacher reflection and that weakly designed and implemented teacher education program treatments appear to be among the major causes for this difficulty.

Nevertheless, the current attention given to such programs across the country underscores the need to better understand the clinical instruction provided and the summative evaluations made of students in these teacher reflection programs. This deeper understanding can help us to improve the design, implementation, and evaluation of such teacher reflection program
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components in the future. Further attention to these questions is, of course, crucial if we are to translate current abstract polemics about teachers as reflective practitioners into reality (Wildman & Niles, 1987).

Such improved understanding could lead us toward obtaining more impressive teacher reflection program outcomes within the seeming limitations of adult cognitive development and emotional growth (King, 1977; Kitchner, 1978; Ross, 1987) and the contextual limitations of current school workplace conditions (Lieberman & Miller, 1984; Little, 1982; Simmons, 1984). Finally, it should be noted that, although many people are actively interested in these questions, we know relatively little at this time about how precisely influential these human and institutional parameters actually are and about how to direct change in these areas.

The History of Teacher Supervision & Evaluation
As Shaped by Our Evolving Research Knowledge of Effective Teaching

Within this framework, we will next discuss the implications which we see for teacher supervision and evaluation if we identify teacher reflection as an explicit goal of our teacher education efforts. We will use an historical perspective to establish two ideas: (1) that paradigm shifts have occurred over the years in how we view effective teaching, and hence, in what we should use as judgment criteria when we carry out teacher supervision and evaluation.

FIGURE 1: A PRESAGE - CONTEXT - PROCESS - PRODUCT
MODEL OF THE RESEARCH ON EFFECTIVE TEACHING

**PRESAGE VARIABLES**
Teacher characteristics

**PROCESS VARIABLES**
Teaching and learning activities and behaviors

**PRODUCT VARIABLES**
Student achievement of educational objectives

**CONTEXT VARIABLES**
1. Student characteristics
2. Subject matter being taught
3. Class environment
4. School/Organizational environment
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and (2) that a new "teacher as a reflective decision-maker" model is needed for such teacher education supervision and evaluation at this time. Figure 1, which presents a presage - context - process - products component model of research on teaching, will be used to explain the paradigm shifts which have occurred. Finally, we will share some of our thinking about what that new "reflective decision-maker" model could incorporate.

The last thirty years have been marked by a dramatic increase in our research knowledge regarding effective teaching, learning, and schooling. While much remains to be investigated yet, this body of research has provided valuable conceptual tools to use in teacher education program content and in teacher supervision/evaluation today.

The teacher as an effective person(ality) paradigm. Early research attempts focused primarily on exploring the links between presage variables (e.g. teacher experience and personality) and product variables (e.g. student learning outcomes)--see Figure 1. This period can be summarized as emphasizing a view of the teacher as an effective person(ality).

According to this perspective, teachers seemed "to be born, not made", as the famous cliche says. Initial teacher preparation programs of this period sought to convey what we would today call the "common sense and wisdom of what worked from practitioners". Staff development programs for experienced teachers as we know them today were almost nonexistent except for events with an "inspirational" tone. While it seemed reasonable to people that variables such as the teacher's warmth and nurturing personality would result in greater student learning, it was believed that stimulating or changing such teacher characteristics and traits was very difficult.

For this reason, the emphasis in hiring was on the initial screening of teachers. Following careful selection, actual supervision activities were carried out on a personal or quasi-familiar basis in a relatively informal, low-profile, and intuitive manner. Teacher evaluation was seen as occurring primarily at the points of student teaching, initial hiring, and the granting of tenure, not as an on-going, career-long function. The supervision and evaluation literature from this period is relatively scant, non-rigorous, and polemic.

This era came to a close in 1960 with the publication of David G. Ryans' classic study, Characteristics of Teachers. After a large-scale analysis of the many investigations done using this presage - product research approach, Ryan concluded that there was no systematic relationship between teacher presage variables and desired student outcomes. He urged researchers to turn their attention to investigating the effects of teacher and student classroom behaviors as a more promising line of research.
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The teacher as a skilled performer paradigm. Thus, a new type of research study began to be conducted during the 1960s - mid 1970s which investigated the links between classroom processes (e.g. brisk pacing, teacher questions, reinforcement) and desired student outcomes as instructional products—see Figure 1. The implied view in such process - product research was of the teacher as a skilled performer of such teaching behaviors, and indeed, these became the content of both initial teacher education programs and staff development programs. This was the era of programs which have been called competency or performance-based teacher education.

During this period, minicourses to develop teachers' procedural knowledge and microteaching experiences to provide simplified and guided practice became popular instructional modes for teachers to learn about the so-called effective teaching behaviors derived as prescriptive rules from such process - product research studies. Some examples of behaviors taught through minicourse/microteaching approaches included teachers' use of questioning techniques, praise and criticism, advance organizers, wait time, etc.

However, with the gradual publication of more and more of such teaching behavior prescriptions for effective teaching, it soon became apparent that there were contradictions among the findings of various process-product research studies, leaving one uncertain about what was the "right" behavior to use. As an illustration, consider: Jacob Kounin's work on classroom management emphasized the importance of a teacher's "brisk pacing", but Mary Bud Row's research on "wait time" recommended that teachers should wait 3 - 5 seconds before calling on a student and after the student's response. Which recommendation for action was correct?

Clearly, various contradictory views were emerging about what constituted effective teaching. Teachers, supervisors, and teacher educators of this time period floundered, trying to choose from among the apparently competing "right" behaviors to emphasize. There was an additional barrier presented by the difficulty of teacher educators, instructional supervisors/evaluators, and teachers themselves accessing and understanding these research studies which used special language and formalized methodologies. Without such research language and methodological background, there was the genuine danger of readers erroneously concluding that effective teaching was just a matter of "whose opinion you wanted to follow". A common perspective of both practitioners and researchers during this time was that the overall gap between the worlds of research and supervision/evaluation practice seemed more like the un-bridgeable Grand Canyon than like two complimentary but different worlds.

The clinical approach to supervision also arose at this time as a structured and participatory way of guiding teachers and supervisors in analyzing these teaching-learning behaviors occurring in classrooms. Despite the more participatory philosophy of clinical supervision, it remained difficult in actual practice to separate teacher supervision and growth from summative teacher evaluation when the same individual (e.g. the principal) was
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often doing both. As a result, the teacher-empowering and growth goals of clinical supervision were minimized as the supervisory climate continued to emphasize teachers producing the "right behaviors and answers".

In this period, the frank truth from many practitioners about their teacher preparation programs was that they were simplistic and unrealistic and that teacher supervision/evaluation practices were overly mechanical and unrelated to what actually occurred each day in the classroom.

The teacher as instructional decision-maker paradigm. The third and still current era in research and teacher education began in the mid 1970s. Researchers began to investigate the links between contextual variables and the previously studied presage variables, classroom processes, and outcomes---see Figure 1. New research methodologies such as aptitude-treatment interaction (ATI), ethnography, and cognitive processing approaches were developed and used in educational research. By late in the 1970s, there was increasing recognition of the role of teachers as instructional decision-makers, facing multiple and conflicting goals, curriculum processes, and pupil needs and opportunities. With this more complex view of the teacher, there were also corresponding cries for changes in supervision and evaluation toward more professional and participatory models.

Today, research studies examine various configurations of presage, context, process, and outcome variables. Dunkin and Biddle's 1974 book, The Study of Teaching, and Nate Gage's The Scientific Basis of the Art of Teaching (1978) reflect this paradigm shift in its early phases. These, along with the 3rd Handbook of Research on Teaching edited by Wittrock (1986), provide a very extensive collection of current research on effective teaching congruent with this teacher as decision-maker paradigm. As a set, this body of research allows us to re-phrase the previous eras' questions about effective teaching in a new form: "which of these factors and in what combination should one consider them when making instructional decisions about these particular learners, instructional goals, and content?"

With this perspective, it is no longer sufficient for our teacher education programs to emphasize the teacher's declarative knowledge (i.e. knowing what...) and procedural knowledge (i.e. having skills or knowing how to do what...). Rather, a new goal for teacher education programs today has become enhancing teachers' conditional knowledge (i.e. knowing not only what and how, but also when and why to do what...) which subsumes the other two types of knowledge.

Such a view places emphasis on the appropriate use of research as a source of conceptual tools (rather than prescriptive rules...) for instructional decision-making by teachers (Simmons & Sparks, 1985). Correspondingly, there is the need for emphasizing these more complex and ambiguous goals in our teacher education programs today. Howey (1985) also speaks of the need to
expand the imperative for today's staff development programs beyond their typically limited emphasis on teachers' pedagogical skills (i.e. behaviors) to also address practitioners' continuing self, career, theoretical, cognitive, and professional development.

**The teacher as reflective practitioner rhetoric.** Although Dewey (1933) long ago emphasized the importance of reflection as a means of learning from experience, it has been only in the last year or two that the idea has again received much serious and widespread attention in teacher education circles. In Dewey's words, such reflective thinking leads to teachers acting in a "deliberate and intentional fashion" rather than a "blind and impulsive" manner (p. 17).

In examining the pertinent literature on reflection, we are left with the feeling that a great deal of conceptual fuzziness currently exists about the meaning of this term. On one hand, it is difficult to quarrel with the increasingly popular rationale for wanting to enhance teacher reflection in our teacher education programs and in the school workplace. Indeed, on the surface, the rhetoric is often as appealing as "motherhood" and "apple pie" are in this country. Nevertheless, the literature is very unclear concerning what kinds of processes and evidence should be accepted as indicative of such teacher reflection. With our concern here for the type of evaluative judgments which occur in the clinical instruction (i.e. formative evaluation) and in the summative evaluation of teachers, knowing more precisely what we mean by "teacher reflection" is crucial.

In a very helpful literature review, Ross (1987) noted the following as important aspects of the cyclical process of teacher reflection: (1) the ability to identify and analyze problems and situations in terms of significant educational, social and ethical issues; (2) the ability to utilize a rational problem-solving approach in educational situations, i.e. to gather, organize, interpret, and evaluate information; (3) the ability to make intuitive, creative interpretations and judgments; and (4) the ability to take action based on a personal decision and to monitor the effects of that action. This framework for teacher reflection is used in the Proteach Elementary Education Program at the University of Florida.

From the writings of Dewey, Schon, von Manen, Ross, Goodman, Zeichner and his colleagues, and others, a loose mosaic portrait of the reflective teacher may be derived. Through our review of the available literature, certain attributes of teacher reflection (see Figure 2) seem to us to provide useful guidance for designing improved supervision and evaluation practices to enhance reflection in teachers. We state these as premises for developing our "teacher as reflective decision-maker" supervisory/evaluation model herein and for guiding further program dialogue and research by ourselves and others.
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With such a view, we would state that the overall "teacher as reflective decision-maker" program goal is one of developing a meta-cognitive, analytical, skillful, socially and ethically-responsive, critically spirited, and self-efficacious teacher who is able to integrate pedagogical knowledge, beliefs, and practices in the instructional decisions which she/he makes. All of this sounds to us a great deal like other phenomena receiving emphasis in current "cutting edge" teacher education programs---e.g. instructional problem-solving, teacher thinking, meta-cognition, critical thinking, emancipatory action research, and so forth.

FIGURE 2: THE ACT OF TEACHER REFLECTION...

(1) requires being able to move across the typical gap existing between theory and practice in education;

(2) occurs through the integrated use of teacher pedagogical knowledge, behaviors, and attitudes and beliefs;

(3) involves the cyclical, holistic, and non-linear use of the teacher's cognitive processes including problem-setting, factor naming, interpretation, analysis, synthesis, and evaluation within a decision-making structure which leads to action (i.e. experience), and in turn, further reflection;

(4) implies both a constructivist view of pedagogical knowledge, beliefs, and practice being gradually created by each individual teacher as well as the existence of collective standards for the use of these by all in the professional occupation group;

(5) is a function of both "nature" and "nurture"---i.e. although people vary in their reflective habits and aptitude before entering programs, this is a program outcome which can be at least modestly enhanced in most teachers;

(6) is influenced both qualitatively and quantitatively by developmental principles such as individual readiness and the teacher's own levels of metacognition, cognitive complexity, critical thinking, and professional commitment and self-efficacy;

(7) is a difficult teacher education program outcome to achieve because designing and operating such programs is a complex psychological, cultural, political, and instructional task because of, among other things, participant characteristics, weak and loosely coupled program structures, typical apprentice-like teacher socialization processes, and wide-spread unfamiliarity with current educational research and social criticism as a framework for reflection;

(8) can be strengthened by the use of such instructional strategies as modeling, cognitive mapping, oral and written "think aloud" exercises, journaling, action research, and structured interviews.
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However, the "teacher as reflective decision-maker" orientation does represent a specific deepening of the currently popular "teacher as
decision-maker" model. By adding the reflective practitioner rhetoric to the
language of that paradigm, the truly reflective teacher becomes one who makes
such instructional decisions consciously and tentatively, considering a full
range of pertinent contextual factors. Despite the need to think and act
quickly in the specific moment, such a teacher maintains a critical stance,
makes a decision, actively seeks evidence about the results, and modifies new
decisions and actions accordingly. More specifically stated, meta-cognition
and a critical stance are added to the current "teacher as instructional
decision-maker" paradigm.

Supervision & Evaluation Directed Toward
"The Teacher as Reflective Decision-maker" Paradigm

Explanation of the reflective decision-maker supervisory/evaluation model.
In elaborating our ideas about supervision and evaluation appropriate for a
"teacher as reflective decision-maker" program, it is important to state first
that we believe that an adequate model of supervision and evaluation for the
current decision-making paradigm has not yet been specifically articulated
either. Therefore, what we propose addresses the implications
of that paradigm as a starting point, but is expanded to also incorporate the broader
view of teacher reflection which we have just explained. Our component model
is designed to reflect key attributes (particularly points # 1, 2, 3, 4, and 8)
of teacher reflection which we identified in Figure 2 of this paper.

The difficulty which we see with the current clinical models of supervision
and their variations is that they emphasize analyzing teacher and learner
behaviors as they occur rather than analyzing the more comprehensive evidence
of teacher thinking, the instructional decisions which are made, and their
results. While we understand and applaud the way in which clinical
supervision authorities have emphasized analyzing behavior (i.e. the second
paradigm) in order to move beyond analyzing personality (i.e. the earliest
paradigm), we believe that conventional clinical supervision needs to be
updated to focus on the inter-connections among the cognition, behaviors, and
beliefs involved in the act of effective teaching.

In Figure 3, we have tried to summarize our current understanding of key
developmental components in a proposed process view of enhancing the reflective
decision-making of teachers. We are referring to these as points, not steps,
because we wish to avoid suggesting that the act of teacher reflection is a
strictly linear one. Rather, the components can be thought of as a framework
or scaffolding for supervision/evaluation designed to emphasize a conceptual
and linguistic approach to integrating pedagogical knowledge with beliefs and
FIGURE 3: TEACHER AS REFLECTIVE DECISION-MAKER
PROCESS MODEL FOR TEACHER SUPERVISION & EVALUATION

1. naive over-confidence: "I know it all"/"I can do it all"
2. theoretical preparation and some involvement in actual teaching occur
3. disillusionment with own initial confidence and with theory due to first awareness of the complexity of actual teaching
4. theory is abandoned as "useless" and imitative use of actions observed in other "successful" teachers occurs; gradually own standards for effective teaching become a set of automatic, instinctive, stimulus-response actions

5A. instinctive action vs. reflective decision-making continuum
5B. "gets stuck" at the instinctive, stimulus-response action stage and adopts such points of view as these:
- "effective teaching is a matter of common sense and one's own personal style"
- "all that educational theory taught was a waste of time---what counts is out here in the real world", etc.

---or---

5B begins to make CONCEPTS - BELIEFS - ACTIONS connections within in a meta-cognitive, critical spirited, cyclical decision-making structure; occurs at first with the direct guidance of others and then increasingly becomes a self-directed process

5B-1. acquires one's own constructed meaning (paraphrasing) of this concept & can demonstrate concept-in-use
5B-2. situation-framing---i.e. recognizes and labels examples and non-examples of this concept-in-use in specific incidents
5B-3. recognizes other concepts related to this concept
5B-4. compares - contrasts this concept with other concepts for relevance to a specific situation at hand
5B-5. identifies cause - effect relationships associated with this concept
5B-6. makes and implements a tentative instructional decision involving use of this concept in relation to specific goal, context, content, student, and teacher factors
5B-7. monitors results of decision and re-cycles steps # 5B - 1 through 7 continuously using this concept, new concepts, and sub-concepts
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behaviors within the individual teacher. The dashed-line path passing through points # 1 - 2 - 3 - 4 and continuing on to points # 5B - 1 through 7 indicates that we believe that this process, although developmental in nature, is only semi-linear in its unfolding within each teacher's growth process.

Our model, we must stress, is tentative and subject yet to empirical testing with different types of teachers, programs, and settings. It has been derived through conceptual analysis from our knowledge of the literature and our experiences in two such teacher reflection-oriented programs and related research projects [see Appendices A and B and footnote 1].

Within such a teacher as reflective decision-maker paradigm, then, the overall program goal is to develop a meta-cognitive, analytical, skillful, critically spirited, and self-efficacious teacher who is able to integrate pedagogical knowledge, beliefs, and practices in the instructional decisions which she/he makes. This differs greatly, however, from the historical occurrence in which many teachers in our typical programs have acquired pedagogical attitudes and behaviors but mentally rejected educational theory as "useless". In other words, many teachers have typically progressed through points # 1 - 4 and then "gotten stuck" at point # 5A of the model. Thus, we have referred to the opposite of reflective decision-making in the model as an "automatic, instinctive, stimulus - response action" level of teacher development. This situation has been exacerbated by most current supervision and evaluation practices which have emphasized teachers performing the "right" behaviors in the classroom with little consideration of why and why not, when, and what if questions.

The new model in Figure 3 outlines a more complex teacher education process with the addition of points # 5B - 1 through 7 which emphasize guiding the teacher to integrate pedagogical concepts in reflective and meaningful ways with the attitudes and behaviors already being emphasized in our teacher education programs. The contrast between the new model and typical programs is apparent in that the reflective decision-maker paradigm uniquely emphasizes these four teacher outcomes: (a) the meaningful learning of pedagogical concepts, (b) cognitive complexity and critical thinking processes, (c) the integration of pedagogical knowledge, behavior, and beliefs, and (d) reflective instructional decision-making as a framework for effective teaching practice and professional growth.

In our own programs and discussions (e.g. Simmons & Schuette, in process), we are coming to place an increasingly strong emphasis on the conceptual and linguistic aspects of the model because of the almost inseparable relationship which exists between thinking and language for human beings, and therefore, for teachers' pedagogical functioning and growth. Helping teachers to acquire a more complex pedagogical language as an increasingly meaningful and precise way of describing their own work and questions seems central to both a constructivist view of human learning and to the complex process of teacher reflective thinking - acting (e.g. problem-setting, factor naming, interpretatio, analysis, synthesis, and evaluation) of which Schon (1983, 1987) and others write.
Let us turn to an example to illustrate the contrast between conventional instinctive teacher action and the "reflective decision-maker" view with which we are concerned here. Consider an example in which a low-achieving pupil, Charlie, is publicly disrespectful to his teacher. When asked, "Where is your math homework?" by the teacher, he responds with a comment of "Hey, teach! Where's yours?".

The response of the teacher whose development is "stuck" at step # 5A will be rule-bound (e.g. send him to the office), imitative of what she has seen modeled by other teachers (e.g. assign him double homework for tomorrow), and/or what determined by what "feels right" in the situation. Such a reactive or instinctive teacher response will fail to seriously recognize contextual factors in Charlie's behavior, to choose a response in light of an analysis of those contextual factors, and to actively monitor the actual effectiveness of her response.

On the other hand, a reflective decision-making teacher of the sort we have been emphasizing here would have the capacity and habit of identifying pedagogical concepts relevant to the situation (e.g. teacher expectations, pupil self-concept, peer status, family influences on pupil) and of analyzing the influence of these concepts in Charlie's specific situation. Following this, she would select, implement, and monitor the effects of a selected teacher response based on an analysis of such influencing factors.

In terms of the most profound and integrative meaning of teacher reflection, this teacher could critically examine different issues related to the incident with Charlie on several levels (von Manen, 1977). In other words, the content of teacher reflection ---i.e. the situation which is framed as problematic by the individual---could vary from micro to macro-topics and from simple, technical matters to more critical and integrative issues. These levels or types of content for reflection could include: (a) technical-empirical questions (e.g. the choice of instructional goals and means in the situation); (b) hermeneutic-phenomenological questions (e.g. Charlie's perspectives and values as well as her own), and (c) critical-theoretical questions (e.g. the moral and ethical dimensions surrounding the school curriculum, Charlie, and herself in society). A particular teacher's focus within this continuum would be influenced, among other things, by her/his professional, cognitive, and emotional development and by the climate in which such reflection occurs.

Use of the reflective decision-maker model in teacher supervision and evaluation. In a supervisory setting, we have conventionally thought of lesson observation as the "really important" component of the supervision/evaluation process. The observation of the teacher in action supplied performance evidence about which the supervisor made evaluative judgments. These evaluative judgments were then tactfully and democratically "served up" to the teacher during the post-conference.
However, with the "teacher as reflective decision-maker" perspective, the lesson observation and the pre- and post-conference components become equally important. Conferences become the prime opportunities to access the teacher's beliefs, thinking, and decision-making processes regarding what can be observed. A pre-conference becomes a time to explore the teacher's thinking and pre-active decision-making concerning concepts - beliefs - actions connections using "think aloud" interview techniques, supervisor modeling, and probing questions. Similarly, the post-conference becomes a time to explore the teacher's inter-active decision-making and post-lesson "second thoughts" using the same concepts - beliefs - actions framework and techniques.

In other words, conferences are important "teachable moments" from a clinical instruction, tutorial perspective as well as are summative evaluation opportunities. According to this reflective decision-making perspective, the supervisor - teacher interaction in conferences should have a "think aloud" quality to it. As the anthropologists say, the conference should be an effort "to make the familiar (i.e. classroom situation) strange and to make the strange (i.e. unexamined situations and decisions) more familiar". We could add that the supervisor and teacher should strive to "think inside out" about classroom situations and related instructional decisions, thoughtfully considering them in terms of as many perspectives and hidden assumptions as the teacher's level of professional development and readiness will allow. The conference, thus, becomes an opportunity to bring classroom situations and decisions to the surface in terms of problem-setting, factor naming, interpretation, pattern viewing, critical thinking, and integrated pedagogical decision-making a. monitoring.

We would assert that both field supervisors and campus instructors need to explicitly emphasize these pedagogical concepts - beliefs - actions connections. Lacking that, this pedagogical integration is not likely to occur in most teachers. For example, if frequent comments from teachers prepared in our typical programs are to be regarded seriously, teacher educators are ironically often guilty of ignoring the potential contribution which explicit modeling of their own reflective decision-making processes can play in the learning of their students. Such teacher educator thinking can be demonstrated and analyzed in a "think aloud" fashion in both campus courses and in supervisory settings. At first, these demonstrations need to be deliberately simple and explicitly developed in a somewhat artificial, step-by-step manner. As teachers develop more depth in reflective thinking - acting, these demonstrations can become more conceptually complex, multi-dimensional, and holistically integrated.

Imagine returning for a moment to sit in unobtrusively on a "think aloud" conference between a supervisor and the teacher whose pupil, Charlie, responded disrespectfully when asked, "Where is your math homework?". According to points # 5B - 1 through 7 in the Figure 3 model, the supervisor could use key questions as a scaffolding to stimulate the teacher's reflective analysis of various facets of the classroom incident, their possible meanings, a likely course of appropriate action to take, and a practical means of continuing to monitor the situation in the future. We are not suggesting that there be a
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script of such questions, but that the framework provided by points # 5B - 1 through 7 be used as a structure for informally guiding the "think aloud" conference. Indeed, our point is not that each of these questions be rigidly asked, but rather, that attention be given to addressing the reflective thinking - acting processes woven into these sample questions within the natural flow of the conference "think aloud" conversation. As the questions demonstrate, we are placing a great deal of emphasis on the important role of pedagogical concepts and language in the conference and of the integrative nature of such reflective decision-making processes for the teacher.

Key questions which could be used to stimulate the supervisor and the teacher's reflective thinking aloud during the conference could include these:
- "What were you thinking and feeling at the time of the incident with Charlie?"
- "What do you think could be Charlie's perspective on this situation?"
- "What pedagogical concepts [do you remember from your teacher preparation experiences] which seem to relate to this incident with Charlie?"
- "How do you think each of these concepts could help us to understand or explain this situation more fully?"

[repeat above two questions until various relevant concepts are explored]
- "Now that we've looked at several factors, what do you think caused this situation with you and Charlie to happen this way?" [What are the cause - effect dynamics which seem to best fit the situation?]
- "With these ideas in mind, how could you sum up your tentative interpretation of the overall situation now?"
- "Could your interpretation of the situation be challenged from another perspective? How?"
- "What future actions could you take to change this situation to a more positive one?"
- "What are the relative advantages and disadvantages of each possible action you could take?"
- "Considering all the perspectives, what action plan now seems best to try implementing first?"
- "How can you continue to monitor the situation and the results of the first action plan you have chosen to implement?"
- "What would you predict might happen next regarding this situation?"

Thus, the conference interaction between the supervisor and teacher could loosely follow the outline provided by points # 5B - 1 through 7. In terms of individual modifications, it is important that the supervisor recognize and respect the teacher's current framework of meaning and concerns as well as her/his readiness for simple or complex reflective analysis, and then, direct the conference dialogue accordingly. At the extreme, when a conference becomes an occasion for the supervisor to utterly impose her/his meaning framework as interpretation, a rich opportunity to create a bridge between the teacher's current interpretation and pedagogically fuller understanding is lost. Such a conference represents missing a "teachable moment" and certainly can not be characterized as having a mutual "think aloud" quality.
As a teacher acquires a broader and deeper pedagogical knowledge and experience-base during her/his career, we could expect that such reflective analysis related to decision-making would become increasingly self-directed and spontaneous. Indeed, concern for enhancing a teacher's habitual use of reflective decision-making in gradually deeper and more sophisticated ways across the transition from novice to experienced teacher, of course, implies a gradual shift from the supervisor to the teacher's own responsibility for reflectively thinking - acting in this way. In other words, the teacher educator's task is to assist the teacher in internalizing such reflective thinking - acting processes until these reflective questions and analyses become like "inner speech" or "self talk" which occurs frequently and spontaneously for the experienced teacher.

Thus, the term we have used in this paper, reflective decision-making, seems equivalent to the integrated thinking - acting processes implied by what Schon explains as "reflection-in/on-action", while our other term, instinctive action, should be viewed as less intelligence-directed than Schon's "knowing-in-action" (1983, 1987). Nevertheless, each of these three conditions seems useful in describing and analyzing what classroom teachers do, how they learn to be teachers, and how they function in carrying out their responsibilities. Throughout his writing, Schon appears to share our interest in a linguistic perspective on the process of enhancing practitioner reflection, but he gives less attention to the role of theoretical concepts-in-use than we do. These ideas will be addressed in further writing now underway (e.g. Simmons & Schuette, in process).

In light of what we have said in this paper, therefore, we have a cautious and limited acceptance of Schon's statements that reflective thought and action are artistry and can be learned, but not taught (1983; 1987). In our opinion, such a point of view, however, also carries the danger of returning the field of teacher education to the extremely limited mentality and practices of the first "teacher as an effective person(ality)" paradigm discussed earlier in this paper. A careless reading of Schon can dwell too much and too superficially on Schon's statements that such processes "cannot be taught" without noting the way in which he elaborates (1987) coaching as an instructional strategy for guiding learning within practicum experiences.

From our reading of Schon, he seems to deliberately place an exaggeratedly strong emphasis on the artistic quality of the reflective thinking of practitioners as a counter balance to the technical rationality view of professional knowledge-use and problem-solving which he criticizes as inadequate in this modern age. Schon's remarks on this point are strong: [artistry is] "intuitive knowing, like the intuitive judgments of a skilled craftman or the intuitive theories-in-action of an expert block balancer" (1983, p. 276) and "it is no accident that professionals often refer to an 'art' of teaching or management and use the term artist to refer to practitioners unusually adept at handling situations of uncertainty, uniqueness, and conflict" (1987, p. 16). Schon emphasizes that while such artistry is "describable", it is nevertheless true that, "there is always a gap between such descriptions and the reality to which they refer" (1983, p. 276).
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Schon's remarks on the sort of professional preparation appropriate for such reflective thinking - acting center again on his notion of artistry:

"Professionals have been disturbed to find that they cannot account for processes they have come to see as central to professional competence. It is difficult for them to imagine how to describe and teach what might be meant by making sense of uncertainty, performing artistically, setting problems, and choosing among competing professional paradigms, when these processes seem mysterious in the light of the prevailing model of professional knowledge. We are bound to an epistemology of practice which leaves us at a loss to explain, or even to describe, the competence to which we now give overriding importance. (1983, p. 19 - 20).

In terms of our purposes here in this paper and in carrying out our own instructional and research work [see Appendix A & B], Schon's recent ideas about coaching for reflection (1987) seem semi-helpful in providing cautions and guidance for implementing clinical instruction.

What remains missing, in our opinion, besides more specificity in Schon's writing and that of others in the field, is some more over-arching content and pedagogical framework which would also address: (a) the context of teacher education, (b) a satisfactory research-based vision of "what an effective teacher" is and does, and (c) the type of conceptual and linguistic perspectives which current constructivist and social psychologies imply. Through this paper, we have tried to present one such approach to using the "teacher as reflective decision-maker" paradigm to derive a framework and strategies for clinical instruction and summative evaluation of teachers. Next, we want to turn to presenting some examples to illustrate our model.

Use of the reflective decision-making model with novice & experienced teachers: In this final section, we want to develop two brief illustrations of applying this model to an initial teacher preparation program with university juniors and to a continuing education masters degree program for experienced teachers. The elaboration of these ideas has been greatly influenced by numerous discussions with colleagues who are engaged in related instruction and research projects [see Footnote 1].

The OERI-funded CITE Project at Eastern Michigan University with which we are both involved has a unified semester of three campus courses and field experience assignments for juniors. These field assignments involve structured observations, interviews, curriculum review, lesson planning, and a three - four lesson mini-unit teaching experience in which classroom management factors are controlled by the cooperating teacher.

Our expectations for modeling and interaction in CITE campus class sessions, cooperating teacher/university student coaching conversations, and our end-of-semester "think aloud" data collection procedures focus particularly on assessing students' capability to function correctly and independently in
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points # 5B - 1 to 3 as indicated in Figure 3. We predict that points 4 through 7 will be present in many students, but at a rather primitive level. We will be using a short, critical incident, structured interview and a four-part student journal exercise to collect such data about how CITE students are able to function at the end of this semester-long experience (Simmons, Sparks, & Tripp-Opple, 1987).

We are placing our emphasis on these limited goals in the CITE Project because such prospective teachers lack yet much of the conceptual and experience-base complexity in pedagogical matters which we believe are necessary to proceed through the entire cyclical process of reflective thinking - acting in a sophisticated and independent manner. We will be satisfied to have them able to recognize appropriate links between the concepts they have studied and realities of the school/classroom events in which they have been immersed during their CITE project participant observation field experience. In addition, we are planning longitudinal follow-up investigations with selected CITE students to study how they continue to progress or regress in making such concepts - beliefs - actions connections as they move into student teaching and induction as beginning teachers.

On a more advanced level, the year-long, action research experience which Simmons directs for experienced classroom teachers in the Michigan State University/Grand Rapids MACT Program allows for a fuller range of integrated growth from points # 5B - 1 through 7 for most participants in this masters degree program. In this program, extensive reading from research, instructor modeling, peer discussions, cooperative reflective decision-making practice exercises, individual written analytic reports with extensive feedback, and instructor/student conferences serve as the principle instructional strategies for developing teacher reflection about instructional decision-making. Cognitive mapping, structured interviews, journaling, and self-efficacy questionnaires are among the data collection instruments being used to research the processes and outcomes of this program (Simmons, 1985a & b).

More detailed information about either of these teacher education programs and their related research efforts is available through journal articles, the ERIC document system, or from the respective authors/directors.

SUMMARY

We believe that the points presented in Figure 3 may be used as a framework for supervision and evaluation in either initial or advanced teacher preparation and for campus or field experience settings. The use of this framework in formative and summative evaluation of program participants offers teacher educators a "window" on where a particular teacher is in this progression and suggests what type of clinical instruction a supervisor should provide to the supervisee or what type of summative evaluation judgment may be made about a teacher's level of reflective decision-making functioning.
It is important here to repeat our cautionary statement that we have derived this model on a basis of a theoretical analysis of the literature and our own empirical understanding developed from our experiences as teacher educators/staff developers over the years. As such, the model is tentative and subject yet to empirical testing with different types of teachers, programs, and settings. We are currently engaged in doing so ourselves, and we would welcome comment from others who are similarly interested.

In this paper, we have presented our current thinking about the type of integrated processes involved in teachers functioning as reflective decision-makers (see Figure 2) and what landmarks exist to guide our work as teacher educators who strive to enhance teacher reflection in our program participants (see Figure 3). Because of the historical paradigm shifts which have occurred in our understandings of effective teaching, teacher educators as a group have underemphasized the role of the conceptual component in teacher education programs and neglected to help teachers integrate it with pedagogical beliefs and actions (Simmons & Schuette, in process). Unfortunately and ironically, as a group we are also famous (or infamous as many of our students would say....) in general for not practicing what we preach about instructional planning, implementation, and monitoring which is explicitly focused in terms of some set of over-arching vision or goals for participants' growth within our teacher education programs.

We recommend that teacher educators turn their own reflective decision-making energies to developing a less implicit and more consistent functional understanding of "the teacher as a reflective decision-maker" template existing in their own minds, in curriculum artifacts and experiences, and in their students' minds. This process seems essential if we are to better design, implement, and research the campus and clinical instruction components and the summative evaluation occurring in our teacher education programs today.

Such an historical and constructivist psychology perspective as we have offered in this paper and elsewhere (Simmons, Moon, & Niemeyer, 1987; Simmons & Schuette, in process; Simmons & Sparks, 1985) suggests the extreme importance of moving in this direction as soon as possible if we are to move beyond the rhetoric of developing "teachers as reflective practitioners" and to truly prepare them for the current complexities of professional practice.
Footnote 1: We wish to enthusiastically acknowledge the insightful contributions of Marcia K. Schuette (Godwin Heights Public Schools alternative high school social studies teacher/MSU graduate student) and of Roger C. Niemeyer and R. Arden Moon (MSU Department of Teacher Education/Supervisory Judgment Research Project) in helping to develop the Teacher as Reflective Decision-maker Instructional & Evaluation Model and to explore its implications for working with novice versus experienced classroom teachers.

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APPENDIX A:

COLLABORATION FOR THE IMPROVEMENT OF TEACHER EDUCATION (CITE) PROJECT

The two authors are involved as Project Director (Sparks) and as External Program Evaluator (Simmons) for the OERI funded Collaboration for the Improvement of Teacher Education (CITE) Project at Eastern Michigan University.

The CITE Project innovation consists of a blocked semester of three courses---CUR 304/5 Curriculum & Methods, SFD 328 Social Aspects of Teaching, & EDP 340 Measurement & Evaluation---and the related field experience activities at the pre-student teaching level. During year 3 (1987 - 88), there are approximately 120 university students involved.

The innovation configuration for the three year CITE Project involves: (1) university - school districts TE program collaboration, (2) the appropriate use of research in TE courses and field experiences, (3) the appropriate use of field experience within campus TE courses, and (4) the conceptual integration of pedagogical content across TE courses and between campus courses and field experience.

As a totality, the CITE Project innovation components seek to emphasize collaboration and professional pedagogical thinking by campus faculty, classroom teacher educators, and prospective teachers (university students). Such pedagogical thinking has been operationalized as the conscious use of pedagogical knowledge to make and to analyze instructional decisions. Programmatically, this has been linked to the use of research in campus courses and field experience activities as a source of conceptual tools, not rules, for teacher decision-making and to greater integration of the pedagogical concepts addressed in the campus and field components of the program.

MASTER OF ARTS IN CURRICULUM & TEACHING (MACT) PROGRAM

In addition, co-author Simmons has been involved since 1981 in directing and researching a year-long action research experience for classroom teachers enrolled in the Master of Arts in Curriculum & Teaching (MACT) program through the Michigan State University Grand Rapids Teacher Education Center.

During this year, experienced teachers study their own classroom practices in light of the latest research on effective teaching-learning-schooling and then undertake an individual or collaborative action research project on an in-depth basis. Along with improved classroom teaching skills, the intended goals of this experience include increased teacher reflection and critical thinking about instructional decisions, professional self-efficacy, and collegial habits.
The Michigan State University Supervisory Judgment Research (SJR) group began to meet as an informal discussion group in the fall of 1984 and included three experienced student teacher supervisors/researchers (Arden Moon, Roger Niemeyer, and Joanne Simmons), the overall department chairperson who had responsibility for administering five alternative student teaching programs (Henrietta Barnes), and a cognitive psychologist with experience in research on decision-making (Chris Clark).

Since 1986, the subsequent, multi-stage research project has been designed by Simmons, Moon, and Niemeyer to extend their original dual roles as researchers and as research subjects to now include other sets of university student teacher supervisors as research subjects. The overall SJR Project at MSU seeks to investigate the complex mixture of role perspectives, professional knowledge and beliefs, and evaluative judgment criteria and processes held and used by instructional supervisors. The purpose of this is to produce further descriptive data and to continue to develop methodological approaches for studying supervisors' cognitive maps of effective teacher performance and their use in the complex process of clinical instruction and evaluation of student teachers.

Current SJR Project investigations focus on questions about both the formation and on-going revision of such conceptual schemata over time as well as compare their contents in terms of a supervisor's explicit self-knowledge with a supervisor's actual knowledge-in-use. A major effort during 1987 - 88 has been placed on conducting the first three-way comparison of judgment criteria and communication occurring among two sets of university supervisor/cooperating teacher/student teacher triads. Related questions concerning the characteristics, selection, preparation, and continuing education of such supervisors are also of interest.

The SJR Project team at Michigan State University has thus far been focusing on these questions in relation to university student teacher supervisors. Plans are underway to extend their work to address the same questions regarding cooperating teachers, school administrators, and mentor teachers as well as the cognitive maps held by the supervisee in each setting and to examine evaluative judgment in other fields such as medicine, business, law, and counseling.

According to both the research literature and an examination of current typical supervisory preparation and practice, this topic has been scarcely addressed until now. Taken as a whole, this set of studies emphasizes the importance of the supervisor's implicit cognition---e.g. knowledge, belief systems, assumptions, and thinking processes---in addition to the more typical historical focus on supervisory techniques if we are to better understand and shape this key component of teacher education/staff development.
For related information on the work of the Supervisory Judgment Research Project, see also:


You are cordially invited to participate in a professional development and research project experience which will help to reveal and clarify your thinking processes as you make evaluative judgments about the student teacher with whom you work in your role as an instructional supervisor. If you are the student teacher in this situation, these evaluative judgments we are referring to are the processes of self-evaluation which are occurring as you move through the student teaching experience.

The research project objectives are:
(1) to identify the criteria which instructional supervisors and student teachers have in their cognitive maps of "effective teacher/teaching performance" and which they think they use in their decision-making to judge the relative success or lack of success of the student teacher, and
(2) to develop and field-test research methodology for identifying and analyzing these evaluative judgment criteria and cognitive maps.

The MSU Supervisory Judgment Research Project was begun in 1984 by the three team members (J.M. Simmons, R.C. Niemeyer, & R.A. Moon) as an effort to investigate and dialogue about the work and mental processes associated with their work as university student teacher supervisors. Discussion sessions with a cognitive psychologist and a teacher education program administrator and qualitative research methodologies such as journaling, cognitive mapping, and structured interviews were used to initially explore this topic. Since 1985, the SJR Project has used these case study approaches to investigate supervisory judgment processes and criteria of instructional supervisors with a variety of professional backgrounds, role perspectives, and individual characteristics. Further information about any of the SJR Project's research reports and work in progress may be obtained from the above address.

Data collection procedures. As an instructional supervisor, you will be asked to identify the criteria that you think you use in making supervisory judgments about the student teacher at three points of the student teaching experience: beginning, middle, and end. The criteria will be recorded using words or phrases which clearly express separate statements of the knowledge, skills, attitudes, values, habits, etc. which you look for as appropriate evidence of how a student teacher is functioning in his/her placement situation. This evidence may thought of as information gathered in any of the typical supervisory interaction situations—e.g. conversations, seminar or meetings, classroom teaching observations, review of written materials prepared by the teacher, comments from the cooperating teacher/university supervisor/colleagues/principal, etc. All such evidence-producing situations are relevant information-gathering opportunities for the supervisor who, in turn, processes this information in order to make judgments or decisions about the relative success or difficulty which the student teacher is having. If you are the student teacher, these criteria and evaluative judgments refer to the situation of self-evaluation.
In addition to identifying these criteria, you will be asked to indicate the relative importance of each criteria statement in your total, overall judgment about the student teacher's performance at that point in time by recording a number from 1 - 100 in front of each statement. The total of the points allocated among all the criteria statements should total 100 points for each data collection appointment.

There will be four data collection appointments of approximately 30 minutes each scheduled at the beginning, middle, end, and after the end of the student teaching experience time frame. At the second - fourth data collection appointments, you will also be shown a list(s) of the criteria and their weights which you identified in the earlier appointment(s) and then asked if you would like to revise the material in any way. This part of the data collection will occur after you have already indicated (without any review) the criteria you use at that particular time point in the supervisory experience. In this way, the criteria and weights obtained at each data collection point will not be biased or influenced by what was said previously, and yet, there will be an on-going reliability and validity check of the emerging cognitive map criteria statement and weights. At the final appointment, you will be shown all of your criteria statements and their weights and asked to organize them into related clusters of similar criteria.

As a analogy to this task, we could consider the similar question: "In your opinion, what comprises an excellent meal with friends?" You could begin to write down evidence which would be indicative for you of such a very good meal, e.g. colorful and fragrant items attractively arranged on the table, bright flowers, soft music, a friendly atmosphere, nutritionally well balanced food items, fresh vegetables, pork chops, potatoes and gravy, gourmet coffee, etc. Each of these components could then be weighted to indicate how relatively important each is as part of your total, overall mental picture of an excellent meal with friends. Indeed, each component could be subdivided and further described in the same way, e.g. "What makes an excellent gravy?", but we are not asking you to go into that much detail in your upcoming task of analyzing what is means to be an effective student teacher.

Information regarding the university supervisor's professional background and supervisory knowledge and beliefs will also be obtained using standard structured interview procedures. The identity of each supervisor, supervisee, and their places of employment will be kept confidential.

ATTACHMENTS:
(1) Criteria Response Sheet for Supervisory Judgment Research Project
(2) Directions for sorting, clustering, and naming criteria statements during the final data collection appointment
CRITERIA RESPONSE SHEET FOR THE EVALUATIVE JUDGMENT RESEARCH PROJECT

Your name__________________________ Today's date___________________________

Name of school site__________________________

Type of role you have: (circle one)
- university/college supervisor
- cooperating teacher/mentor teacher/etc.
- student teacher

# of this data collection appointment: (circle one)
beginning    mid-point    end

Please list below the criteria you are using as you interact with your student teacher and which you use to make judgments about his/her relative success or difficulty at this point in time. These may be knowledge, skills, attitudes, values, habits, etc. which you look for as appropriate evidence of how that teacher is functioning in his/her school situation. If you are the student teacher in this situation, please refer to the criteria which you use in evaluating yourself and your work.

Use as many words or phrases as you need to express each criteria clearly below. After you have finished, please indicate the relative importance of each criteria by recording a number from 1 to 100 which would reflect the relative importance of each item in your total, overall judgment about the teacher. You have a total of 100 points to distribute among all your criteria statements. You may use as much time as you need to record your statements below.

RECORD YOUR STARTING TIME __________ AND ENDING TIME __________.

____ points 1)____ points 2)____ points 3)____ points 4)____ points 5)____ points 6)____ points 7)____ points 8)____ points 9)____ points 10)____ points 11)

-----turn the page over if you wish-----
J.M. Simmons 1/87

DIRECTIONS FOR SORTING, CLUSTERING, & NAMING THE CRITERIA STATEMENTS DURING THE FINAL DATA COLLECTION APPOINTMENT

Each one of the evaluative judgment criteria statements which you identified in our previous appointments at the beginning (B), middle (M), and end (E) points of the supervisory time frame has been retyped on these pieces of paper and then cut apart. Notice that each statement has been labeled with a B, M, or E and clipped together and that the point value or relative weight that you indicated for each criteria statement has also been included.

**Step 1:** Lay out all your criteria statements on this large piece of paper under the headings of B, M, and E in such a way that simultaneously shows:

1. how similar criteria statements across the B, M, and E time points could be lined up in **horizontal** rows under the B, M, and E; and
2. how families of related criteria could be subgrouped in the **vertical** columns under B, M, and E.

If this task seems too difficult to do, please just say so, and you do not have to proceed. If you find there are some of your criteria statements which don't fit into a horizontal row or vertical column subgrouping, please just lay them aside in a separate grouping.

**Step 2:** When you are satisfied with the overall configuration, tape or glue the pieces of paper with your criteria statements and weights to the larger sheet of paper in the horizontal and vertical pattern you have created.

**Step 3:** As you look at the total picture in front of you, are there any new criteria statements under the B, M, or E vertical columns or in any of the horizontal row category subgroupings that you would want to add now? If so, please write it on the large sheet of paper in the proper horizontal and vertical position and draw a box around the statement so that it fits in with your other criteria statements.

**Step 4:** Identify a category name for each horizontal row subgrouping that would adequately describe the items you have clustered together as related to each other. (e.g. CITRUS FRUITS would describe a grouping of oranges, lemons, limes, grapefruits, etc.)

**FIRST QUESTION FROM THE STRUCTURED INTERVIEW**
(answer to be tape recorded)

1. How satisfied are you now with this as an adequate representation of your cognitive map of specific teacher evaluation judgment criteria? If not, please explain what you feel is missing yet.

---continue on with rest of interview questions for university supervisor only----

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