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ABSTRACT

This study investigated whether training cooperating teachers using a Praxis III/Pathwise model to frame discussions on teaching and learning would enhance development of pedagogical skills, examining the effects of mentor training on student teachers' demonstration of 19 target criteria. Student teachers were randomly assigned to field experiences either in an experimental group that used Praxis III/Pathwise training for cooperating teachers or to a control group that employed a traditional supervision approach only for cooperating teachers. Student teachers received orientation to the Praxis III/Pathwise framework. All participants provided pre-assessment data during week 1 of student teaching via a videotaped lesson using Praxis III/Pathwise support tools. Student teachers met with cooperating teachers periodically for discussions on teaching and learning. Data were gathered at midpoint and at the end of student teaching. Cooperating teachers trained in the general principles and practices of mentoring and supervision with Praxis III/Pathwise to guide interactions have more positive impact on student teacher development than those with no training. There were areas within the framework where mentoring alone was not the factor primarily responsible for differences. (Contains 37 references, 5 tables, and 1 figure.) (SM)

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Teaching Mentors: Is It Worth the Effort?

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Teaching Mentors: Is It Worth the Effort?

During the past decade and a half, mentoring in teacher preparation and induction has received increased attention. Teacher education organizations have responded with special interest groups, workshops, and thematic issues. Why would this surprise us? After all, the National Center for Educational Statistics recently reported that only one in five teachers feel "very well-prepared" to work in today's classrooms (NCES, 1999). Opportunities or time to work with other teachers is perceived by beginning teachers to improve their teaching (NCES, 1999). Despite the profusion of rhetoric and increased implementation of mentoring programs focused on the induction year, little attention has been given to the conceptual development and empirical evidence on mentoring (Little, 1990). Far less attention has been paid to the mentoring that occurs in the teacher preparation program field experiences like student teaching, either conceptually or empirically. Yet, these experiences are seen as a primary link between theory and practice. As these field experience hours increase, questions loom as to whether or not the experiences provide prospective teachers with the best professional growth opportunity. Preliminary to the study, two broad areas of the literature were investigated: mentoring and the components of Praxis III/Pathwise assessment framework.

Mentoring

Field experiences have long been considered a valuable component of teacher education (Brimfield and Leonard, 1983; Conant, 1963; Silberman, 1970), but many would suggest that their true potential has not been reached. The most common practice is for university teacher education programs to place students with little regard to the

supervisory practices of the field-based cooperating teacher (McIntyre, 1984; Griffin, G., et. al, 1983; Guyton, 1989). As a result, during the most impressionable time in their preparation program, our future teachers often work with cooperating teachers who generally embrace the opportunity to work with student teachers, but are ill-prepared for their role (Grimmett & Ratzlaff, 1986; Lewis, 1990), have unrealistic expectations (Sparks & Brodeur, 1987), and are tentative about the feedback they give (Morehead & Waters, 1987). Because of the importance of student teaching in developing effective practices, the kind of mentoring prospective teachers receive is a critical issue that teacher educators must investigate.

For the past 20 years, there has been increased attention for the need to provide beginning teachers support as they enter the profession. As a result, mentoring has been incorporated into both state-mandated initial certification programs and teacher preparation programs (Huling-Austin, 1989; Giebelhaus, 1999). But what is mentoring? There is no uniformity in the literature how mentoring in preservice teacher education is defined or should be conducted. There are numerous definitions of mentoring generally. Alleman, Cochran, Doverspike and Newman (1980) defined mentoring as "a relationship in which a person of greater rank or expertise teaches, guides, and develops a novice" (p. 329). Schmidt and Wolfe (1980) listed three broad categories - role model, consultant-advisor, and sponsor - as functions of mentoring. Schein (1978) suggested eight mentor roles: teacher, confident, sponsor, opener of doors, role model, developer of talent, protector, and successful leader. No matter how mentoring is defined, the role it plays appears to be of interest as both state education agencies and teacher preparation institutions struggle to

assist novice teachers' successful entry into the profession.

One of the primary concerns is that few models exist that provide consistency and focus to the development of mentoring programs in preservice teacher education. Of the literature that does exist, most focus on mentoring during the induction year(s) of the beginning teacher. For example, the Association of Teacher Educators published a monograph which did just that (Bey and Holmes, 1992). Little attention has been given in the literature to effective mentoring models for preservice teacher education programs. Generally, schools, colleges and departments of education feel at the mercy of school districts regarding the mentoring of their novices during field placements. As noted above, the kind of mentoring preservice teachers receive is, at best, marginally effective. How then, can the field experiences, long believed to be critical in the professional development of novice teachers, reach its potential?

The development of practical mentoring models may be an answer. Mentoring models for preservice education may include many of the same factors one should consider for other mentoring programs. However, preservice teacher education has to be proactive, requiring systematic and systemic changes in the relationships it has to schools and school districts. Bowman and Ward (1999) describe such a change that began with preservice teacher education and extended to the professional development of experienced teachers.

Giebelhaus (1999) suggests that mentoring models should include, among other things: "a framework for selection and training of mentors and opportunities for mentors and their protégé to work together - including opportunities for direct observations of teaching" (p. 11). Enz (1992), O'Dell (1987) and Huffman and Leak (1986) are among those that have

suggested attributes that need to be considered when selecting mentors. Personality characteristics, ability to recognize and communicate about effective teaching, and similar grade and/or content specialization all contribute to effective mentoring. Mentors should also understand both the function of mentoring and the process (Head, Reiman & Theis-Sprinthall, 1992).

The process of effective mentoring includes both observation and feedback requiring time of both the mentor and the beginning teacher. A wide variety of models for direct observation can be found in the literature (Cogan, 1973; Glickman, 1990; Goldhammer, 1980; Hunter, 1985), yet the intended audience for such models was administrators and the summative evaluation process, not mentors. Mentors require models that not only allow them to observe, but to frame that observation to be developmental – providing formative feedback. Still, what each of these observation models point out is the need for time to conduct complete and meaningful observations of teaching and appropriate constructive feedback. A primary professional development opportunity for beginning teachers (and some might say their mentors) can be the discussions about teaching and learning that result from such direct observations by mentors. However, to maximize the effectiveness of such feedback, a developmentally appropriate framework to focus the discussions is also required.

Praxis III/Pathwise Framework

The *Praxis III/Pathwise* (Dwyer, 1994) model represents a constructivist view of meaning making. The model is built on a framework of essential teaching skills as defined in the literature and by professional educators. Educational Testing Service (ETS) developed the Praxis III/Pathwise framework for direct observation and assessment of

teaching as companion pieces. Praxis III is generally considered a summative assessment while Pathwise is considered to be formative in nature. The key to developing an effective tool for use by both mentors and assessors of novice teachers was to consider the very nature of classroom teaching. The challenge in the development of a framework for practical assessment of classroom teaching was that the criteria could not be too broad or too narrowly defined (Kagan, 1991; Katz & Raths, 1985). The variability of the contexts of classroom teaching required that there be some flexibility in the framework for observation.

To determine what requisite knowledge and skills should be included, ETS conducted a thorough review of the literature, large job task analyses, and field testing (Dwyer, 1994). The resultant framework is divided into four broad domains of teaching: (a) organizing content knowledge; (b) creating and environment for student learning; (c) teaching for student learning; and (d) teacher professionalism (Figure 1). These domains are very consistent to other measurement areas for performance assessments noted in the literature (Tracy & Smeaton, 1993; Street, 1991, Klem, 1993).

The underlying conceptions of teaching and learning which form the foundation of Praxis III/Pathwise is that learning is an active process, building on knowledge, experience, skills, and interests. This is a highly individualized, recognizing that teaching must be adaptive to the context, involves complex decision-making, and draws on a repertoire of techniques. Each domain consists of specific criteria which identifies and defines the teacher behaviors that should be demonstrated by the novice teacher.

Purpose of the Study

The purpose of this study was to determine if specific training of cooperating teachers using a model (Pathwise) to frame discussions on teaching and learning would produce growth and development of prospective teachers' pedagogical skills. The study examined the effect of mentor training on student teachers' demonstration of nineteen specific target criteria under four domains. The research hypothesis for this quasi-experimental design was: student teachers who have cooperating teachers trained in mentoring processes and who use a common framework for discussion (Praxis III/Pathwise, ETS, 1995) demonstrate more thorough and effective teaching than those who have cooperating teachers with no specific training other than the orientation to the roles and expectations of the student teaching experience.

Method

Subjects

The subjects were twenty-nine student teachers from two mid-western NCATE accredited teacher education institutions. They represented undergraduate teacher education. These students were both traditionally-aged (N=26, 21-24 years old) and non-traditionally aged (N=3, 25-45 years old). There were eight males and 21 females, including two African Americans. Although each student had completed his/her prescribed undergraduate course of study required prior to student teaching, there was wide diversity in the types of teacher certification they were seeking: 2 (K-8), 20 (1-8, 4 of whom were seeking dual certification with Special education), 3 (middle school), and 4 (Secondary Education: English, mathematics, social studies). There was also diversity in the contexts of the student teaching

experience as well: both urban and suburban settings in high, average, and low SES communities. It was during this 10 week field experience that data for the present research were collected.

This study examined two levels of training with data gathered at three different points during student teaching. Subjects were randomly assigned for the field experience to either an experimental group that would employ the training of cooperating teachers (N=14), or to a control group that would employ a traditional supervision approach (N=15). Further, the two groups were randomly placed in schools, and as a third randomization process, subjects were randomly assigned to cooperating teachers within these schools.

Instrumentation

The *Praxis III/Pathwise* (Dwyer, 1994) model was selected for the training framework to use with these prospective teachers and their mentors as representing a constructivist view of meaning making. This model, built on a framework of essential teaching skills as defined in the literature and by professional educators, was developed by Educational Testing Service (ETS). The Praxis III/Pathwise framework for direct observation and assessment of teaching as companion pieces; Pathwise is the system of support tools used in the direct observation and assessment of classroom performance while Praxis III is the formal evaluation component. The 19 research-based teaching criteria are divided into four broad domains: (a) organizing content knowledge; (b) creating and environment for student learning; (c) teaching for student learning; and (d) teacher professionalism (Figure 1).

[Insert Figure 1]

Student Teacher Orientation

Prior to the 10-week investigation, a 4-hour orientation was held for all the student teachers. Although both groups participated in the same training, subjects were not told at that time nor at any time during the study whether they were part of the experimental or control group. The orientation included an overview of the *Praxis III/Pathwise* framework for assessment, roles, and responsibilities. This introduction included definitions of the 19 criteria, as well as discussion. This was followed by the subjects viewing a videotape, collecting evidence, and sharing their evidence with the group for further discussion and clarification.

Teacher Orientation

The teaching experience of the cooperating teachers ranged from 3 to 25 years, with a mean of 10.4 years (SD=8.31) of classroom teaching. Fifty-nine percent of the cooperating teachers had completed some post-baccalaureate university work. As part of the roles and responsibilities discussed with all cooperating teachers each was required to conduct weekly observations and conferences.

Fifteen cooperating teachers were assigned to the control group. Teachers in this group received no special training in the Pathwise framework. They received the required orientation to student teaching concentrating on the roles and responsibilities of a cooperating teacher and the general principles and practices of supervision. Topics included conferencing strategies (both pre and post), roles of cooperating teacher, methods of observation, data collection, Cogan's (1973) clinical model, and record keeping. Teachers were to conduct weekly observations and conferences with the student teacher. Teachers were also introduced to supervisors and the evaluation schedule (midterm and final) was clarified. All cooperating

teachers had previously hosted either student teachers or field experience preservice teachers.

Fourteen teachers were assigned to the experimental group. Teachers were trained in the general principles and practices of supervision, the same information presented to the control group, and the process of Praxis III/Pathwise framework. There were 10 training sessions (3 hours each session). The process included cooperating teachers discussing the criteria for each domain. Following a domain description, a videotape was viewed and evidence collected for the criteria discussed. Then teachers had the opportunity to present their evidence and engage in discussion on teaching and learning. Both simulation and role playing was used to engage active participation in the process. Teachers were to meet weekly with their student teacher and use the evidence gathered from Pathwise as their frame for conversation and feedback.

Data Collection and Analysis

Preassessment data were collected for all subjects during week 1 of the student teaching experience. Data were provided through a videotaped lesson and the support tools of the Praxis III/Pathwise: preobservation form, classroom profile, instructional profile or lesson plans, reflective profile, and post observation form. On the first day of student teaching experience, subjects met with cooperating teachers to discuss their plan to videotape a 20 minute lesson. During this week, the first lesson taught by the student teacher was videotaped and documentation collected.

Following this teaching episode, all subjects engaged in a post conference with the cooperating teacher. For the experimental group, the post conference occurred between the student teacher and the cooperating teacher using the criteria from the Praxis III/Pathwise

model to frame their dialogue. The control group had no guidelines for post conference dialogue.

Data were gathered at two other subsequent points: midpoint (during the middle four weeks) and final point (during week 9 of student teaching). Each replicated the same procedures of the preassessment assignment: videotaped lesson using the Praxis III/Pathwise support tools.

The Praxis III/Pathwise (Dwyer, 1994) was used to evaluate treatment effects on the development of the nineteen criteria embedded within the four domains of effective. The criteria were rated on a 3.5-point scale. To adjust for any differences between groups, an analysis of covariance was selected for use, covarying on the pretest scores.

Rater Training

Two raters, each having worked with student teachers for eight years and having an average of 20 years teaching experience, were trained to analyze the videotaped data. The raters had been trained in a five-day, eight-hour per day training. During the sessions definitions of targeted criteria were discussed, quizzes were taken to verify knowledge of definitions, sample videos viewed, evidence recorded, and results discussed and verified against the juried scores provided by ETS. This procedure was followed for each domain. The inter rater reliability was at .95, the standard required by ETS for this high stakes assessment. Each rater viewed all videos (87 tapes), randomly assigned and numbered with pre/mid/post unknown to the raters.

Results

Analysis of data indicates that prospective teachers who have cooperating teachers

trained using a common framework for discussion demonstrate more complete and effective planning, more effective classroom instruction, and greater reflectivity on practice than those whose cooperating teachers received only the orientation. To adjust for any differences between groups, an analysis of covariance (ANCOVA) was selected for use controlling for pretest scores on the four domain overall means. A multivariate analysis of covariance (MANCOVA) on the nineteen discreet criteria was selected to control for pretest differences and group differences. The ANCOVA on the overall domain means revealed a significant difference between groups at the .001 level on each of the four domains. These results, displayed in Table 1 suggest significant differences between groups on the posttest measure.

[Insert Table 1]

The MANCOVA, adjusting for differences on the pretest score, conducted on the nineteen discreet skills revealed statistical significance at or exceeding the .05 level on eleven of the nineteen skills (Tables 2-5). The "adjusted treatment" refers to the groups whereas the "due to regression" refers to the pretest differences. These results reveal a significant difference between the treatment and control groups when controlling for pretest differences as well as group effect. For example, Table 2 reveals the analysis for Domain A (Organizing Content Knowledge for Student Learning). Three of the 5 discreet criteria on this table reach significance exceeding the .05 level (A1, A2, A4). Referring to the two domains that are related to direct observation of teaching, Table 3 (Domain B-Creating an Environment for Student Learning) reveals that two of the five criteria reached the .05 level of significance (B3 and B5) while Table 4 (Teaching for Student Learning) reveals that four of the five criteria obtained significance at the .05 level (C1, C2, C3, C5). Finally, Table 5 (Domain D- Teacher

Professionalism) reveals that two of four criteria exceeded the .05 level of significance (D3 and D4). It should also be noted that although the estimated effect is positive for the remaining eight criteria, they were not significantly different than 0 at the .05 level of significance.

[Insert Tables 2-5]

Discussion

These results appear to indicate that cooperating teachers trained in the general principles and practices of mentoring and supervision with a specific framework to guide interactions have a more positive impact on prospective teacher development than those with no training. When one looks closely at the results, however, there appears to be areas within the framework (specific criteria) where mentoring alone (group effect) does not appear to be the factor which is primarily responsible for differences. Although in each specific criteria the group effect is positive, there are those which indicate that differences were at least in part due to the individual differences at pretest. For example, in the A Domain (Organizing Content Knowledge for Student Learning) one criteria (A3 - demonstrating an understanding of the connections between content that was learned previously, the current content, and the content that remains to be learned in the future) revealed that the difference may be tied more to individual differences on the pretest measure than by group effect. Essentially, this may suggest that depth of knowledge within a content area is not something that is easily addressed through mentoring.

With the B Domain (Creating an Environment for Student Learning) two criteria revealed significance at least at the .05 level (B3 and B5) although the others neared the

significance level. Within those two criteria, B3 (communicating challenging learning expectations) revealed that the significant difference was clearly due to the treatment rather than any differences on the pretest. Of the three non-significant findings, B4 (establishing and maintaining consistent standards of classroom behavior) revealed that the positive effect may have been more likely due to subject differences on the pretest than on group effect. It is well established by Lortie (1975) and others, that classroom discipline is a concern for teachers generally. Could this result reflect a predisposition with regard to "classroom behavior" that may not be impacted by mentoring? The same question might be posed regarding B1 (creating a climate that promotes fairness) and B2 (establishing and maintaining rapport).

Table 4 reveals the analysis for Domain C – Teaching for Student Learning. This reflects the "act" of teaching. Clearly, the results (four of five criteria reaching significance) indicate a greater impact on mentoring within this domain than any of the others.

In the D Domain (Teacher Professionalism), D2 (demonstrating a sense of efficacy) did not reach the level of significance. Further, there is no clear indication that either group or pretest effect impacted the student teachers sense of efficacy. Why? Although efficacy is an area in which there has been both semantic and conceptual difficulties in the research (Pajares, 1992), there are few that would deny that those teachers who take personal responsibility for student learning are more effective (Porter & Brophy, 1988). As field-based teacher educators, we have noticed that when training mentors in this area, classroom teachers have difficulty distinguishing between personal responsibility for student learning (D2) and reflecting on the extent to which learning goals are met (D1). Could it be that mentor teachers do not fully understand or have a strong sense of efficacy and therefore have difficulty

relaying this concept to their protégé?

Despite these questions, the results of this study clearly indicate that mentor training does assist cooperating/mentor teachers by equipping them with a framework for providing effective and comprehensive feedback to developing professionals. As Good & Brophy (1994) note, "The ability to describe behavior heightens awareness of it as it unfolds in the classroom. A conceptual system allows teachers to classify what they are doing as they do it , making it possible for them to be aware of what they do and remember it later" (p39). However, such feedback may not be sufficient in certain areas of teacher effectiveness. Therefore, the long standing debate among educators of whether teaching is more of an art or science again comes to mind.

Implications for Teacher Education

As long as field experiences are considered a critical component of preservice teacher education programs, colleges and universities must be concerned about the preparation of those working most closely with the students during this time, the field-based cooperating or mentor teacher. Ensuring that each field-based teacher educator has comprehensive training to effectively assist in the learning of their student teachers has been shown here to make a significant difference in the "product" which results - the demonstration of effective teaching skills by student teachers. With appropriate knowledge and training in the philosophy and goals of the teacher preparation program, in the basic principles and practices of effective mentoring and supervision, and in a framework of effective teaching practice, cooperating/ mentor teachers are more effective in their role and a more productive learning environment is attained.

The *Praxis III/Pathwise* model is a codification of effective teaching techniques and procedures that provides a system by which experienced teachers and novices can talk about teaching and learning using the naturalistic setting of the K-12 classroom as a backdrop. Based upon the results of this study, it appears that this model provides a framework for discussion, reflection, and goal setting which leads to more effective teaching by novices. Although this study only begins to answer the question posed in the title "Is it worth the effort?", perhaps a more critical question for teacher educators is "Can we afford not to invest our effort in the mentoring of novice teachers?"

This is a critical issue in teacher education especially when one considers the highly charged atmosphere that is pervasive in this country - assessment and accountability of both university programs that prepare our nation's teachers and the teachers they produce. The National Council for the Accreditation of Teacher Education (NCATE) and numerous state departments of education have entered into an era where performance-based accreditation and/or licensure are becoming a reality. It would appear that colleges and universities should take notice of the impact that training of field-based teacher educators has on the development of effective classroom teachers. Further investigation may allow for a consensus to be reached on performance-based standards for preservice teachers and how specific training of field-based teacher educators can enhance the learning of preservice teachers. Given the current tenor of the national and state accountability movement, teacher education cannot just stand by watching.

References

Alleman, E., Cochran, J., Doverspike, J., and Newman, I. (1984). Enriching mentoring relationships. The Personnel and Guidance Journal, 62, 329-332.

Bey, T.M. and Holmes, C.T. (1992). Mentoring: Comtemporary Principles and Issues. Reston, Virginia: Association of Teacher Educators.

Brimfield, R. and Leonard, R. (1983). *The student teaching experience: A time to consolidate one's perceptions.* College Student Journal, 17, 401-406.

Bowman, C. & Ward, P. (1999). Extending the vision: Mentoring through university-school partnerships. Mid-Western Educational Researcher, 12(4), 33-37.

Cogan, M.L. (1973) Clinical Supervision. Boston, MA: Houghton Mifflin Company.

Conant, J.B. (1963). The Education of American Teachers. New York: McGraw Hill.

Dwyer, C. A. (1994). PRAXIS III: Classroom Performance Assessments Assessment Criteria. Princeton, NJ: Educational Testing Service, ETS.

Educational Testing Service, (1995). Praxis III/Pathwise. Princeton, NJ: ETS.

Enz, B.J. (1992). Guidelines for selecting mentors and creating an environment for mentoring. In T. Bey and C. Holmes. Mentoring: Comtemporary Principles and Issues, (pp. 77). Reston, Virginia: Association of Teacher Educators.

Giebelhaus, C.R. (1999). Leading the way . . . State initiatives and mentoring. MidWestern Educational Researcher, 12(4), 10-13.

Good, T. and Brophy, J. (1994). Looking In Classrooms. New York, NY: Harper Collins, Inc.

Glickman, C. et al. (1990). Supervision of instruction : A developmental approach, 4th edition. Needham Heights, MA: Allyn & Bacon.

Goldhamer, R. et al., (1980). Clinical Supervision: Special Methods for the Supervision of Teachers. New York: Holt Rinehart.

Griffin, G., Barnes, S., Hughes, R., O'Neal, S., Defino, M., Edwards, S., and Hukill, H. (1983). *Clinical preservice teacher education: Final report of a descriptive study.* Austin, TX: University of Texas, Research and Development Center for Teacher Education (ERIC Document Reproduction Service No. ED 223 565).

Grimmett, P. and Ratzlaff, H.C. (1986). Expectations for the cooperating teacher role. Journal of Teacher Education, 37, 41-50.

Guyton, E. (1989). Guidelines for developing educational programs for cooperating teachers. Action in Teacher Education, 11, 54-55.

Head, F., Reinman, A., and Theis-Sprinthall, L. (1992). The reality of mentoring: Complexity in its process and function. In T. Bey and C. Holmes (Eds.), Mentoring: Contemporary Principles and Issues, (pp. 5-24). Reston, VA: Association of Teacher Educators.

Huffman, J. and Leak, S. (1986). Beginning teachers perceptions of mentors. Journal of Teacher Education, 37(1), 22-25.

Hunter, M. (1985). Mastery teaching. El Segundo, CA:TIP Publications.

Huling-Austin, L.L. (1989). Beginning teacher assistance programs: An overview. In L. Huling-Austin, S.J. Odell, P.Ishler, R.S. Kay, R.A. Edelfelt (Eds.), Assisting the Beginning Teacher, (pp. 3-18). Reston, VA: Association of Teacher Educators.

Kagan, D. (1991). The reform of teacher education. Phi Delta Kappan, 675-677.

Katz, L.G. and Rath, J.D. (1985). A framework for research on teacher education programs. Journal of Teacher Education, 36(6), 9-15.

Klem, L. (1992). *STAT state information tables, 1992.* Princeton, NJ: Educational Testing Service.

Lewis, M. (1990). AACTE RATE study finds enrollment increase. AACTE Briefs, 11(3), 1,6.

Little, J. W. (1990). The mentor phenomenon and the social organization of teaching. In C.B. Cazden (Ed.), Review of Research in Education (pp. 297-351). Washington DC: American Educational Research Association.

Lortie, D. (1975). School Teacher: A Sociological Study. Chicago: University of Chicago Press.

McIntyre, D.J. (1984). A response to the critics of field experience supervision. Journal of Teacher Education, 35(3), 42-45.

Morehead, M. and Waters, S. (1987). Enhancing collegiality: A model for training cooperating teachers. The Teacher Educator, 23(2), 28-31.

National Center for Education Statistics (NCES). (1999). Teacher quality: A report on teacher preparation and qualifications of public school teachers. Washington, D.C.: author.

O'Dell, S.J. (1987). Mentor Teacher Programs. Washington, DC: National Education

Porter, A., & Brophy, J.E.(1988). Synthesis of research on good teaching: Insights from the work of the Institute of Research on Teaching. Educational Leadership, 45(8), 74-85.

Schein, E.H. (1978). Career Dynamics: Matching Individual and Organizational Needs. Reading, MA: Addison-Wesley.

Schmidt, R.A. and Wolf, J.S. (1980). The mentor partnership: Discovery of professionalism. NASPA Journal, 17(3), 45-51.

Silberman, C.E. (1970). Crisis In The Classroom. New York: Random.

Sparks, S. and Brodeur, D. (1987). Orientation and compensation for cooperating teachers. Teacher Educator, 23(1), 2-12.

Street, M.S. (1991). Content synthesis of currently used state-wide performance assessment instruments. Princeton, NJ: Educational Testing Service.

Tracy, S.J. and Smeaton, P. (1993). State-mandated assisting and assessing teachers: Levels of state control. Journal of Personnel Evaluation in Education, 6, 219-234.

Figure 1
Pathwise Domains & Criteria

Domains	Criteria
A Organizing Content Knowledge for Student Learning	A1. Becoming familiar with relevant aspects of students' background and experience. A2. Articulating clear learning goals for the lesson that are appropriate to the students. A3. Demonstrating an understanding of the connections between the content that was learned previously, the current content, and the content that remains to be learned in the future. A4. Creating or selecting teaching methods, learning activities, and instructional materials or other resources that are appropriate to the students and are aligned with the goals of the lesson. A5. Creating or selecting evaluation strategies that are appropriate for the students and that are aligned with the goals of the lesson.
B Creating an Environment For Student Learning	B1. Creating a climate that promotes fairness. B2. Establishing and maintaining rapport with students. B3. Communicating challenging learning expectations to each student. B4. Establishing and maintaining consistent standards of classroom behavior. B5. Making the physical environment as safe and conducive to learning as possible.
C Teaching for Student Learning	C1. Making learning goals and instructional procedures clear to students. C2. Making content comprehensible to students. C3. Encouraging students to extend their thinking. C4. Monitoring students' understanding of content through a variety of means, providing feedback to students to assist learning, and adjusting learning activities as the situation demands. C5. Using instructional time effectively.
D Teacher Professionalism	D1. Reflecting on the extent to which learning goals were met. D2. Demonstrating a sense of efficacy. D3. Building professional relationships with colleagues to share teaching insights and to coordinate learning activities. D4. Communicating with parents or guardians about student learning.

Table 1
Analysis of Covariance for Overall Domain Means

Domain		A		B		C		D	
Source	df	F	p	F	p	F	p	F	p
Model	6	17.075	0.0001	5.412	0.0014	15.888	0.0001	6.025	0.0011
Adjusted Treatment	(1)	5.844	0.0001	3.509	0.0020	4.841	0.0001	3.142	0.0046
Error	22								
C Total	28								

Table 2
Multivariate Analysis of Covariance for Domain A - Discreet Skills

Criteria		A1		A2		A3		A4		A5	
Source	df	F	p	F	p	F	p	F	p	F	p
Adjusted Treatment	1	4.904	0.0001	3.307	0.0028	0.607	0.5494	3.366	0.0024	1.676	0.1057
Due to Regression	1	9.352	0.0001	2.701	0.0120	4.216	0.0003	1.396	0.1745	3.986	0.0005
Error	26										
C Total	28										

Table 3
Multivariate Analysis of Covariance for Domain B - Discreet Skills

Criteria		B1		B2		B3		B4		B5	
Source	df	F	p	F	p	F	p	F	p	F	p
Adjusted Treatment	1	1.693	0.1024	1.659	0.1092	2.054	0.0502	1.166	0.2543	5.205	0.0001
Due to Regression	1	2.186	0.0380	2.105	0.0451	0.659	0.5157	2.816	0.0092	0.331	0.7435
Error	26										
C Total	28										

Table 4
Multivariate Analysis of Covariance for Domain C - Discreet Skills

Criteria		C1		C2		C3		C4		C5	
Source	df	F	p	F	p	F	p	F	p	F	p
Adjusted Treatment	1	5.316	0.0001	5.137	0.0001	3.669	0.0011	1.154	0.2589	3.579	0.0014
Due to Regression	1	0.603	0.5519	1.153	0.2594	1.689	0.1031	2.927	0.0070	2.883	0.0078
Error	26										
C Total	28										

Table 5
Multivariate Analysis of Covariance for Domain D - Discreet Skills

Criteria		D1		D2		D3		D4	
Source	df	F	p	F	p	F	p	F	p
Adjusted Treatment	1	1.675	0.1060	1.359	0.1567	2.408	0.0234	3.134	0.0042
Due to Regression	1	2.221	0.0352	1.530	0.1382	5.220	0.0001	5.747	0.0001
Error	26								
C Total	28								

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