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ABSTRACT

This paper describes the Beginning Teacher Survey Study's rationale, design, theoretical framework, research questions, and findings. The study was designed to: develop a survey that would gather information from beginning teachers about their preservice and induction learning experiences; develop theoretically and empirically based constructs of teacher preparation, induction, knowledge, beliefs, and practice; and determine relationships among three sets of variables (teacher preparation, teaching knowledge and practice, and student learning). The survey was administered in Tennessee and Connecticut to first, second, and third year teachers of grades 3-8 who taught reading and/or mathematics. This paper reports findings from Tennessee only, focusing on mathematics instruction. By linking the database of survey responses from Tennessee beginning teachers to measures of student academic growth, researchers were able to examine relationships between teacher preparation/practice variables and measures of teacher effectiveness based on student learning. Preliminary findings indicate that beginning teachers were more successful in teaching mathematics if they: believed that teachers can have an impact on student learning; helped students make sense out of mathematics; learned how to do this in their teacher preparation program; and received continued support in their first teaching years from an experienced mentor. Appended is the theoretical model. (Contains 36 references.) (SM)

A Beginning Teacher Survey Study: A Theoretical Perspective

by

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This paper presents an initial and partial analysis of a Beginning Teacher Survey Study. It describes the study's overall rationale, design, theoretical framework, and research questions as well as a few, preliminary findings. A companion paper prepared for the symposium by Mark Reckase ("Methodological Issues in Describing the Features and Qualities of Teacher Education Programs") describes the methodology in greater depth. A final report of the project will be submitted to OERI and the Ford Foundation later the spring (May/June 2001).

The study has been supported by the U.S. Department of Education, Office of Educational Research and Improvement, since January 1999. Noted scholars from across the country contributed to the overall research design and development of survey items. A grant from the Ford Foundation covered costs of administering the survey. The National Education Association, Tennessee Education Association, and three local affiliates were active supporters, contributing letters of endorsement, access to databases, and resources, at cost, from the NEA Professional Library. National Computer Systems was hired to design, print, and scan responses to the survey, which was administered to beginning teachers during the Spring Semester, 2000. William Sanders, formerly Professor and Director of The University of Tennessee Value-Added Research and Assessment Center and currently with SASinSchool™ assisted with the sampling design and data analysis for the Tennessee sample. Ray Pecheone, Katie Moirs and their colleagues at the Connecticut State Department of Education did the same for the Connecticut sample.

Purpose

The Beginning Teacher Survey Study, has three independent, but inter-related goals:

- To develop a survey that would provide useful information from beginning teachers about their preservice and induction learning experiences and opportunities
- To develop theoretically and empirically-based constructs of teacher preparation, induction, teacher knowledge and beliefs, and teaching practice
- To determine relationships among three sets of variables: (a) teacher preparation, (b) teaching knowledge and practice, and (c) student learning.

Until now, research on the quality and impact of teacher preparation has relied primarily on indicators of effectiveness such as expert judgment, observation of practice, interviews of graduates, and surveys of principals and supervisors (Kennedy, 1996; Zeichner, 1999). But with growing concern about educational quality and equality, policy makers are seeking more direct evidence of teaching quality--impact on student learning--despite the methodological problems posed (see for example Berk, 1988). This survey was designed to provide information about the quality and impact of both university-based, pre-service teacher preparation and the continued support and induction experiences in the first years of teaching.

To provide information about the effectiveness of teacher and teacher education programs based on student learning, the survey was administered in two states, Tennessee and

Connecticut, from which we could obtain measures of student learning attributable to classroom teachers. These measures were then merged with the survey results. In this paper, we report only on findings from the Tennessee sample. Our colleagues from the Connecticut State Department of Education discuss the Connecticut results in their "Policy-Practice Perspective" paper. By linking the database of survey responses from Tennessee beginning teachers to measures of student academic growth, we were able to examine the relationship between teacher preparation/practice variables and measures of teacher effectiveness based on student learning.

Since the ultimate goal of the study was to determine the impact professional preparation and support systems have on the effective practice of beginning teachers, the study addressed two main questions:

(1) Does formal teacher preparation have an impact on teaching knowledge, beliefs, and practices in ways that positively affect student learning?

(2) If so, what characteristics of that preparation are most important?

Theoretical Model

The theoretical model underlying the study posits a direct, linear relationship between (a) teacher learning opportunities, (b) teaching knowledge, beliefs, and practices, and (c) student learning. Teacher learning opportunities will impact student learning indirectly--through teaching practice itself. Since there are numerous other influences on teaching knowledge and practice (innate ability; general educational opportunities; family/community influence; school context; students' readiness to learn) and on student learning (family background, motivation, prior learning, educational resources), we anticipate that the impact of our predictor variables will be relatively small, no more than 5% of the explained variance. This effect size is, however, potentially significant. As previous studies have shown, high quality teachers have enormous impact on student learning (Ferguson, 1991; Greenwald, Hedges & Laine, 1996; Sanders & Horn; 1998).

One of our first task in designing the study was to conceptualize the components of teacher preparation, knowledge, and practice likely to have the most impact on student learning as measured by standardized tests of elementary-level reading and mathematics. Figure 1 depicts the theoretical model that informed the development of the survey and analysis of responses. As seen in that diagram, we assume that teacher preparation has an impact on teaching knowledge, beliefs, and practices, which then affect student learning. The overall quality and impact of teacher preparation is influenced by structural and conceptual features of a candidate's program. In addition to the preservice aspect of preparation, teacher effectiveness is also influenced by in-service opportunities to learn. During the beginning years of teaching, these professional development experiences are generally thought of, and often formally organized, as teacher induction.

But formal teacher preparation is not the only influence on teaching effectiveness. In fact, there is reason to believe that it is not even the most significant influence. An individual does not come to teaching as a blank slate. Each already has well formed beliefs, dispositions and personalities. In teaching, more than any other profession, personal beliefs and knowledge schemas about future work are established long before any formal preparation begins (Dunkin & Biddle, 1974; Lortie, 1975). Therefore, the theoretical model considers the influence of individual differences that precede teacher preparation on measures of teacher effectiveness. In addition, school contexts impact the quality of teaching. This influence is shown in Figure 1 as Classroom and School Contexts (see Appendix). The various sections of the survey--teacher preparation, teaching knowledge and practice, and individual/school variables--correspond to this theoretical model. In general, the teacher preparation items function as independent variables; teaching knowledge, beliefs, and practices are mediating variables; and personal, classroom, and school items serve as control variables. The dependent variables are measures of teacher effectiveness that are derived from student learning growth as measured by standardized tests (more about the Tennessee methodology later).

There are three types of questions about teacher preparation on the survey. The first type asks about the structural aspects of preservice teacher preparation. Claims have been made about the efficacy of a number of structural factors, such as having students complete an "extended" (five or fifth year) program (Carnegie Forum, 1986; Holmes Group, 1986; NCTAF, 1996). Therefore, we include questions about program type and length, asking about alternative as well as traditional routes to teacher licensing (Andrew, 1998; Dill, 1996). In a similar manner, we developed constructs for other structural factors such as the alignment of teacher preparation with the K-12 curriculum (Cohen & Hill, 1998); program coherence (Floden & Buchmann, 1990; Howey, 1996); cooperative relations between schools and universities such as PDSs (Goodlad, 1994; Holmes, 1990; NCTAF, 1996); faculty quality (NCATE, 1995; Holmes Group, 1995); and assessments of teacher candidates based on performance criteria (Elliot, 1996; Wilson, 1995).

The second type of question asks about curricular and conceptual aspects of the respondent's preparation. Conceptual factors in the preparation of teachers that seem most essential are: subject matter preparation (Linn & Baker, 1998; Rowan, Chiang & Miller 1997); pedagogical preparation (Darling-Hammond, Wise & Klein, 1995; NCRTE, 1991), and preparation for student diversity (Ladson-Billings, 1995; Zeichner, Grant, Gay, Gillette, Valli & Villegas, 1998). A similar process was followed in developing induction constructs (Feiman-Nemser & Remillard, 1996; Huling-Austin, 1992) and constructs of teacher knowledge, practice, and beliefs (Carpenter & Lehrer, 1999; Chazen & Ball, 1995; Fennema & Romberg, 1999; NRC, 1998; Pressley, 1998).

The third type of question asks about professional development opportunities once respondents started teaching. These teacher preparation questions are followed by inquires about teacher knowledge (literacy, mathematics, and pedagogy), teaching practices (use of time, materials, and activities), and efficacy beliefs. The final type of questions, which serve as control

variables, ask for potentially pertinent demographic and achievement information as well as information about the classroom composition and school climate.

The final part of the theoretical framework is the dependent variable: teacher effectiveness. For the Connecticut sample, this variable was constructed by (1) matching teachers to students, (2) obtaining measures of student learning gain, and (3) converting those gains into 1-5 ratings of teacher effectiveness. Measures of teacher effectiveness were derived from pre- and post-tests of the Connecticut Mastery Test (CMT). In Tennessee, the norm-referenced portion of the Tennessee Comprehensive Assessment Program (TCAP), given to all students in Grades 2-8, is the basis for determining teacher effectiveness in five subject areas: mathematics, reading, language arts, science, and social studies. TCAP uses the Terra Nova test by CTB Macmillan/McGraw Hill, which provides a "comprehensive modular assessment series" of student achievement. Measures of student learning attributable to individual teachers are determined through the TVAAS. By using scale scores from students' performance on norm-referenced tests and a statistical mixed model methodology, TVAAS obtains unbiased estimates of the independent influence of teachers, schools, and school systems on student learning. Having these scale scores on each student from Grades 3-8 means that students serve as their own control. [See McLean, Sanders & Stroup, (1991) and Sanders, Saxton & Horn (1997) for further explanation of this methodology].

Pilot Study and Sample

During the 1999 summer months, items for the survey were informally piloted with focus groups of respondents. The purpose of the piloting was to determine the strength of the individual items, the clarity of the instructions and items, and the amount of time the various sections of the survey would take to complete. Approximately 170 graduate and undergraduate education students at two major state universities participated in this pilot phase.

After revisions were made based on the pilot study and feedback from consultants, the survey was administered to beginning teachers in Tennessee and Connecticut. Approximately 600 teachers responded. The target population was the same in Connecticut and Tennessee: 1st, 2nd, and 3rd year teachers of Grades 3-8 who taught reading and/or mathematics. The sample of 165 beginning teachers in Connecticut came from school districts that volunteered to participate in the study. All 4th, 6th, and 8th grade 1st - 3rd year teachers in those districts were asked to answer the survey and to administer pretests and posttests of the state's standardized achievement test to their students during the 1999-2000 school year.

In Tennessee, the sample was derived from statewide mailing lists of beginning teachers obtained from the Tennessee State Department of Education, the National Education Association, and local affiliates of the Tennessee Education Association, which allowed us to over-sample in large, urban school districts. From the Tennessee mailing we received 445 returns, a response rate of about 20%.

Separate databases were constructed from responses in the two states. Data analysis includes simple descriptive statistics (measures of central tendency and variation), factor analysis, first-order correlations, and multi-variate analysis. Among the questions the survey enabled us to address were:

- Do specific types of teaching knowledge, beliefs, and practices positively impact student learning?

- Do teacher preparation and induction programs improve teaching practice and, consequently, student learning?

Some Preliminary Findings

The estimates of beginning teacher effectiveness in Tennessee were more variable in the area of mathematics instruction than in reading, language arts, science, or social studies. Because of that, we focused our analysis on predictors of effectiveness in the teaching of mathematics.

Based on estimates from the 1999-2000 school year, the two strongest predictors of effective mathematics instruction were a sense of teaching efficacy and, what we are currently calling, "adaptability" or "flexibility" in the teaching of mathematics.

The Efficacy Scale is composed of seven items (D7, 1, 6, 11, 3, 5, and 2) from the survey instrument. The anchor to that scale is item #7, "Teachers can do very little to overcome the effects of poverty on student learning." Items 1 & 7 are our versions of the Rand General Efficacy scale. Their original question was "When it comes right down to it, a teacher can't do much because most of a student's motivation and performance depends on his/her home environment". We thought the question would function better if it separated motivation and performance. Our Item #3 is the Rand "Personal Efficacy" item that is commonly used in other studies" "If I try hard, I can get through to even the most difficult or unmotivated student."

The Math Adaptability/Flexibility scale is also composed of seven items (F2c, 2d, 2I, 2j and F3h, 3i, 3j) about both teacher and student activities during mathematics instruction. The anchor items are teacher frequency in "applying mathematics to real-world problems" and "modeling different learning strategies for students" and student frequency in "exploring different methods to solve a mathematical problem" and "using manipulative materials or models to solve problems." These seem to be efforts to help students make sense out of mathematics and stand in sharp contrast to the "drill and lecture" scale that was negatively related to student learning. Items on that scale were, for example, presenting information, drilling students on computational skills, and having students work individually on problems from a textbook or workbook.

How do beginning teachers learn to be flexible and adaptable in their teaching of mathematics and to help students explore different methods of problem solving? Part of the answer seems to be their teacher education programs. The primary predictor of the MathFlex

variable was the Math Preparation Scale (C39-51), a finding that supports the claim that Lee Shulman and others make about the importance of pedagogical content knowledge. Beginning teachers were more likely to help their students make sense out of mathematics if they answered that their teacher preparation program prepared them "well" or "very well" to do things like "teach connections among mathematical ideas" and "teach mathematical problem solving skills."

Mentor Frequency (G5) also had a positive impact on Math Effectiveness. Those who reported being assigned an experienced mentor/teacher who gave them frequent (monthly or weekly) feedback on their teaching, classroom management, and instructional planning had a stronger positive impact on student learning than those who never or seldom received any feedback or encouragement.

In summary, our basic findings indicate that beginning teachers are more successful in their teaching of mathematics if they believe teachers can have an impact on student learning, help students make sense out of mathematics, were taught how to do this in their teacher preparation program, and received continued support in their first years of teaching by an experienced mentor.

Other preliminary findings include:

- Candidate Assessment (B17-22) is a strong predictor of MathFlexibility / Adaptability, but disappears in the partial regression analysis, where C42 ("my teacher education program prepared me to teach connections among mathematical ideas") becomes the strong predictor.

- B10 (perception of preparation in mathematics) is negatively related to teacher effectiveness. Self-perception of "strong mathematics" background does not seem accurate; however, B7 (strong disciplinary preparation) is positively related teacher effectiveness in mathematics.

- H2a (measure of student absence) & H4h ("The school provides extra assistance to students having trouble academically") are positively related to gain. Not surprisingly, kids who are in school and who get extra help do better than kids who are absent a lot and don't receive a lot of help. H4a ("The school has well defined learning expectations for all students") also has a positive impact on student learning.

- Items G2 and G3: Professional Development Content (strong focus on mathematics and/or reading) are negatively related to student learning growth in science. This might indicate that a school is placing such strong emphasis on improving teaching and learning in these areas that the science curriculum is being ignored. It is conceivable that science isn't even being taught very often.

References

Andrew, M.D. (1998). What do we know about differences among four year and extended programs in teacher education. Paper presented at the Annual Meeting of the American Association for Colleges of Teacher Education.

Berk, R. (1988). Fifty reasons why student achievement gain does not mean teacher effectiveness. Journal of Personnel Evaluation in Education, 1, pp. 345-363.

Carnegie Forum (1986). A nation prepared: Teachers for the 21st century. A report of the task force on teaching as a profession. New York: Carnegie Forum on Education and the Economy.

Carpenter, T. , & Lehrer, R. (1999). Teaching and learning mathematics with understanding. In Fennema, E., & , Romberg, T. (Eds.), Mathematics classrooms that promote understanding (pp. 19 -32). Mahwah, NJ: Erlbaum.

Chazen, D., & Ball, D. (1995, October). Beyond exhortations not to tell: The teacher's role in discussion-intensive mathematics classes (NCRTL Craft Paper 95-2). East Lansing, MI: National Center for Research on Teacher Learning.

Cohen, D., & Hill, H. (1998). Instructional Policy and Classroom Performance: The Mathematics Reform in California. Phila: CPRE.

Darling-Hammond, L., Wise, A., & Klein, S. (1995). A license to teach: Building a profession for 21st-century schools. Boulder, CO: Westview Press.

Dill, V. (1996). Alternative teacher certification. In J. Sikula et al. (Eds.). Handbook of Research on Teacher Education (pp. 932-960). New York: Macmillan.

Elliot, E. (1996). What performance-based standards mean for teacher preparation. Educational Leadership 53 (6), 57-58.

Feiman-Nemser, S. (1990). Teacher preparation: Structural and conceptual alternatives. In W. R. Houston (Ed.), Handbook of Research on Teacher Education (pp. 212-33). New York: Macmillan.

Feiman-Nemser, S., & Remillard, J. (1996). Perspectives on learning to teach. In F. Murray (ed.), The teacher educator's handbook: Building a knowledge base for the preparation of teachers (pp. 63-91). San Francisco: Jossey-Bass.

Fennema, E., & Romberg, T. (Eds.). (1999). Mathematics classrooms that promote understanding. Mahwah, NJ: Erlbaum.

Ferguson, R. (1991). Paying for public education: New evidence on how and why money matters. Harvard Journal of Legislation, 28, 465-98.

Floden, R., & Buchmann, M. (1990). Coherent programs in teacher education: When are they educational? In D. P. Ericson (Ed.), Philosophy of Education 1990 (pp. 304-14). Normal, Ill.: Philosophy of Education Society.

Goodlad, J.L. (1994). Educational renewal: Better teachers, better schools. San Francisco: Jossey-Bass.

Greenwald, R., Hedges, L., & Laine, R. (1996). The effect of school resources on student achievement. Review of Educational Research, 66 (3), 361-396.

Holmes Group (1986). Tomorrow's teachers. East Lansing, MI: The Holmes Group.

Holmes Group (1990). Tomorrow's schools: Principles for the design of professional development schools. East Lansing, MI: The Holmes Group.

Holmes Group (1995). Tomorrow's schools of education. East Lansing, MI: Holmes Group.

Howey, K. (1996). Designing coherent and effective teacher education programs. In J. Sikula et al. (Eds.). Handbook of Research on Teacher Education (pp. 143-170). New York: Macmillan.

Huling-Austin, L. (1992). Research on learning to teach: Implications for teacher induction and mentoring programs. Journal of Teacher Education, 43 (3), 173-180.

Kennedy, M. (1996). Research genres in teacher education. In F. Murray (Ed.). The Teacher Educator's Handbook. San Francisco: Jossey-Bass.

Ladson-Billings, G. (1995). Multicultural teacher education: Research, practice, and policy. In J. Banks & C. Banks (Eds.). Handbook of Research on Multicultural Education (pp. 747-759). New York: Macmillan.

Linn, R., & Baker, E. (1998). School quality: Some missing pieces. The CRESST Line: Newsletter of the National Center for Research on Evaluation, Standards, and Student Testing (Fall), 2-3, 7.

McLean, R.A., and Sanders, W.L. (1984). Objective Component of Teacher Evaluation--A Feasibility Study, (Working paper No. 199), Knoxville, TN: University of Tennessee, College of Business Administration.

National Center for Research on Teacher Education (1991). Final Report: The national center for research on teacher education. East Lansing, MI: Michigan State University, NCRTE.

National Commission on Teaching and America's Future (1996). What matters most: Teaching for America's future. New York: NCTAF.

National Council for Accreditation of Teacher Education (1995). Standards, procedures & policies for the accreditation of professional education units. Washington DC: NCATE.

National Research Council. (1998). Preventing reading difficulties in your children. C. E. Snow, M. S. Burns, &P. Griffin (Eds.) Washington, DC: National Academy Press.

Pressley, M. (1998). Reading instruction that works: The case for balanced teaching. New York: Guilford Press.

Rowan, B; Chiang, F., & Miller, R.J. (1997). Using research on employees performance to study the effects of teachers on students achievement. Sociology of Education, 70 (October), 256-284.

Sanders, W. L. & Horn, S. P. (1998). Research findings from the Tennessee Value-Added Assessment System (TVAAS) database: Implications for educational evaluation and research. Journal of Personnel Evaluation and Education, 12 (3).

Sanders, W. L., Saxton, A. M., & Horn, S. P. (1997). The Tennessee value-added assessment system. In J. Millman (Ed.), Grading teachers, grading schools: Is student achievement a valid exaluation measure? Thousand Oakes, CA: Corwin Press.

Wilson,S. (1995). Performance based assessment of teachers. In S. Soled (Ed.) Assessment, testing, and evaluation in teacher education (pp. 189-219). Norwood, NJ: Ablex.

Zeichner, K. (1999). The new scholarship in teacher education. Educational Researcher, 28 (9), 4-15.

Zeichner, K., Grant, C., Gay, G., Gillette, M., Valli, L., & Villegas, A. M. (1998). A research informed vision of good practice in multicultural teacher education: Design principles. Theory into Practice, 37 (2), 163-171.

APPENDIX

THEORETICAL MODEL

THEORETICAL MODEL
Beginning Teacher Preparation Survey

Overall Relationship of Variables:

Teacher Preparation Factors (#2-15) → Knowledge, Beliefs & Practices (#20-30)

Literacy Beliefs & Teaching Knowledge (#22-23, 30) → Literacy Practices (#26-27)

Mathematics Beliefs & Teaching Knowledge (#24 &25, 30) → Mathematics Practices (#28 &29)

Efficacy Beliefs (#20 & 21) → Teaching Practices (#26-29)

Teaching Practices (#26-29) → Teacher effectiveness/Student learning

Relationship Among/Within Teacher Preparation Variables:

Structural Factors (#2-7) → Conceptual Factors (#9-13)

Structural Factors (#2-7) + Conceptual Factors (#9-13) → Overall Factors (#14-15)

Faculty Characteristics (#4) → Field Experiences (#5a) + Theory/Practice (#5b) + Candidate

Assessment (#6) → Coherence (#3)

Coherence (#3) + Field Experiences (#5a) + Faculty Characteristics (#4) + Theory/Practice (#5b) → Alignment (#7)

Licensing Route (#1) → Program Type (#2) → Program Quality (#14) → Program Impact (#15)

PD Support, Focus & Characteristics (#16-18) → PD Impact (#19)

Relationship Among Belief/Knowledge/Practices Variables:

Orientations toward subject matter (#23 &24)→activities & materials used (#26, 27, 28, 29)

Materials (#26 & 28) → Activities (#27, 29)

Knowledge of pedagogy & subject matter (#22, 25, 30) → orientations, materials and activities (#23, 24, 26-29)
Efficacy Beliefs (#20 & 21) → activities, materials (26-29)

Control Variables:

Teacher Qualities (#31) + Placement (#32 &33) → Teacher Practices (#26-29) →Teacher Effectiveness

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