# TEP-2 RESEARCH BRIEF #1

## PROJECT PURPOSE, DESIGN AND PARTICIPANTS

Prepared for the O-QAT Title-II Initiative 3.1 Continuing Licensure Design Team

March, 2003

## Contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synopsis</td>
<td>i</td>
</tr>
<tr>
<td>Background and Rationale</td>
<td>1.1</td>
</tr>
<tr>
<td>Research Questions</td>
<td>1.1</td>
</tr>
<tr>
<td>Genres of Research on Teacher Education</td>
<td>1.2</td>
</tr>
<tr>
<td>Research Design and Methodology</td>
<td>1.2</td>
</tr>
<tr>
<td>Research Participants and Attrition</td>
<td>1.3</td>
</tr>
<tr>
<td>Summary</td>
<td>1.5</td>
</tr>
<tr>
<td>References</td>
<td>1.6</td>
</tr>
</tbody>
</table>

By

Mark D. Schalock
Laurel Cuthbertson
Teaching Research Division
Western Oregon University
Synopsis 1

Questions Addressed

The TEP-2 Project (The Longitudinal Effects of Teacher Preparation on the Practice and Beliefs of New Teachers and the Learning of Their Students) was designed to determine whether some very specific characteristics of teacher preparation make a difference in what beginning teachers believe, how they think about teaching and learning, how they perform in the classroom, and the quality and quantity of the learning of their students. Questions addressed through the research included:

- Descriptive-comparative questions focusing on what teachers do, how they think, what they believe, and the quality and quantity of the learning of their students (i.e., questions focusing on what is).
- Discrepancy-comparative questions focusing on teaching and learning to accepted standards (i.e., questions focusing on how what is stacks up to what is expected).
- Longitudinal-development questions focusing on change and what influences change.

Content and Organization

This brief provides background to the project and places it within the broader traditions of research on teacher preparation. TEP-2 is characterized as a hybrid of several research traditions or genres. We have characterized it as a retrospective, causal-comparative study of teacher preparation effects employing mixed-methods. However, the study does go beyond this in that we are also looking at change over the first three years of teaching, and what most influences this change. This brief describes the mixed-method approaches to data collection used in the project, the analytic approach taken with these data, the teachers studied, and the attrition that has taken place.

Sample Size and Origin

The first cohort of participants was recruited during the summer and fall of 1999. Two hundred and twenty-five teachers were identified by school districts as fitting the profile needed for the research. Of these, 74 agreed to participate. During the course of the first year, 6 of the 74 terminated their participation in the study, resulting in 68 fully participating cohort one beginning teachers. Sixty of these teachers were prepared within Oregon, and 8 were prepared outside of Oregon. Of the 60 prepared within Oregon, 33 were prepared at public institutions, 27 at private institutions.

The second cohort of participants was recruited during the summer and fall of 2000. We purposely recruited only teachers who had been prepared out of state to bolster our numbers in this category. Thirty-five teachers were identified by school districts as fitting the profile needed. Of these, 27 agreed to participate. Many, however, did not in fact fit the profile we were seeking, leaving a total of 12 newly recruited out-of-state teachers. During the course of the first year, 3 of these teachers terminated their participation in the study, resulting in 9 fully participating cohort two beginning teachers.

The total number of first year teachers in the study is 77 (68 from cohort 1 and 9 from cohort 2). The total number of second year teachers in the study is 60 (53 from cohort 1 and 7 from cohort 2). The total number of third year teachers in the study (from cohort 1 only) is 44.

Findings

Of the 86 beginning teachers who had at one time agreed to participate in the study, 35 asked that their participation be terminated (41%). Three of these teachers essentially changed their minds regarding participation prior to the onset of data collection. Fourteen indicated that participation in the study was simply too much work on top of teaching. Three identified either family or personal medical reasons for leaving the
study. Three left the study due to maternity leave. Two moved out of state. We simply lost contact with ten participants over the course of the summers. When we have contacted their schools for the previous year, no forwarding address was available, though in some cases we were informed that the individual had left not only the school, but also teaching.

✓ Attrition rates have varied from 27% for individuals prepared at Private Liberal Arts Colleges and Universities to a full 50% of those prepared at Research Universities. Over half of the males (53%) and 37% of the females who participated in the study have dropped out. Finally, while 34% of individuals prepared at the graduate level have dropped out of the study, 46% of those prepared at the undergraduate level have dropped out.

**Potential Implications for Continuing Licensure**

✓ Findings from the research and performance patterns observed in early career teachers may provide empirical support for the performance standards to be set for Continuing Licensure.
✓ Experience using specific instrumentation and/or approaches to evidence generation may point to instruments and procedures that can be used within the Continuing Licensure system.
✓ The level of attrition and the reasons given for dropping out of the study pose questions regarding the willingness and ability of practicing teachers to complete the Continuing Licensure requirements.

**Potential Implications for Initial Licensure**

✓ Findings from the research and performance patterns observed in early career teachers may provide empirical support for policies and procedures in Oregon’s Initial Licensure system.
✓ Findings from the research may provide evidence having implications for specific aspects of teacher preparation program design.
✓ Findings from the research may provide evidence having implications on the design of mentoring programs for early career teachers in Oregon.
Background and Rationale

The TEP-2 Project *(The Longitudinal Effects of Teacher Preparation on the Practice and Beliefs of New Teachers and the Learning of Their Students)* is more than program evaluation. In addition to the local and state importance of the proposed research, the project has been designed to provide needed understanding to broader questions that are important in the nation. Does the nature of teacher preparation make a difference in how teachers practice their craft? Does it make a difference in the quality and quantity of what K-12 students learn? How strong are the influences of teacher preparation? Can these influences be measured? The answers to such fundamental questions, based on long-held assumptions, may seem self-evident. This project’s team thinks not. There is growing understanding and consensus through research conducted in Tennessee and elsewhere that teacher quality and effectiveness have critical, long-term, cumulative, and non-compensatory effects on the learning of children (Sanders & Horn, 1998). There is growing awareness that the nation will face over the next decade a substantially heightened demand for qualified teachers. And, there continues to be across the states, low regard for teacher preparation programs and the work of teachers, contributing to “fast-track teacher preparation” and other schemes (some supported by the federal government) used to license teachers. At the same time, professional associations representing teacher preparation (NCATE, AACTE) have recently reformed their policies to acknowledge and center the importance of making explicit the connection between teaching and learning in the context of teacher education. For all of these reasons, it is timely and appropriate that this research proposes more than an evaluation of Oregon’s policies on teacher licensing. It is timely and appropriate that this project turn the empirical light of research on issues that continue to obscure teacher preparation, its influences and effects on the practice of teachers, and most critically, its effects on the quality and quantity of students’ learning.

Specific Program Characteristics of Interest

TEP-2 was proposed to ask the broader questions of whether some very specific characteristics of teacher preparation make a difference in what beginning teachers believe, how they think about teaching and learning, how they practice, and the quality and quantity of the learning of their students (McConney & Schalock, 1998).

Specifically we are interested in three characteristics of preparation (consistent with Oregon policy at least) that we thought might have an impact on early career teacher performance above and beyond the general quality of a preparation program. These included:

- Clear and consistent alignment with Oregon’s standards-based design for schooling;
- Clear and consistent focus on the explicit connection of teaching to learning (through teacher work sampling for example);
- On-going, developmental assessment of teacher candidates against clear and public performance standards tied to a design for schooling.

At the time we proposed this study we felt that these characteristics would be important, specifically in the context of Oregon’s standards-based design for schooling, though possibly in a more general sense as well, especially given the recent revisions of NCATE Standards.

We also are interested in documenting the first three years of experience and the forces that influence change in what teachers believe, how they think, how they practice and their effectiveness.

Research Questions

The Central Research Question

Does teacher preparation – in its design, structure and character – make a difference in the practice, beliefs and thinking of new teachers and the learning of their students?
Sub-Question Areas

- Descriptive-comparative questions focusing on what teachers do, how they think, what they believe and the quality and quantity of the learning of their students (i.e., questions focusing on what is).

- Discrepancy-comparative questions focusing on teaching and learning to accepted standards (i.e., questions focusing on how what is stacks up to what is expected).

- Longitudinal-development questions focusing on change and what influences change.

Genres of Research on Teacher Education

Mary Kennedy identified five research genres in her 1996 chapter in The Teacher Educators Handbook, edited by Frank Murray. These included: 1) Production functions; 2) Experiments; 3) Have and have not; 4) Ask the teacher; and 5) Watch the Teacher Change.

TEP-2 it is not a production function study (though it does include student learning, and will use multiple regression as one exploratory analytic tool), and it is not an experiment. It does, however, have strong roots in the following genres.

Have and Have Not. TEP-2 certainly shares some of the characteristics of the "Have and Have Not" genre, though not in such a stark contrast. Rather, the study takes a program variation approach. TEP-2 looks at teachers who are teaching, and looks back (retrospectively) at different emphases in their preparation. TEP-2 also goes beyond looking simply at teacher practice, and looks at teacher beliefs/attitudes, teacher thinking, and student outcomes as well. TEP-2 does suffer from not fully controlling for per-service differences in the teachers studied to see how these differences interacted with program characteristics and performance as an early career teacher. We are, however, asking what influence the program had in changing how they thought about teaching and learning and about specific teaching practices.

TEP-2 also builds in some control not usually found in this research genre by looking just at early career teachers in K-5/6 public elementary schools.

Ask the Teacher. TEP-2 also shares some characteristics with this research genre, but is much more open ended than the forced choice follow-up studies typically found here. We did ask our teachers many things, however, and take the information provided into account as part of the context in which teaching and learning occur.

Watch the Teacher Candidate Change. TEP-2 shares many of the same design characteristics as this research genre, but applied to the beginning years of teaching rather than during the preparation program. TEP-2 looks at how these beginning teachers changed and also asks what influenced those changes.

Research Design/Methodology

TEP-2 is a hybrid of what Dr. Kennedy calls the Have and Have Not (program variation) genre, the Ask the Teacher genre, and the Teacher Change genre. We have characterized it as a retrospective, causal-comparative study employing mixed-methods. It goes beyond a causal-comparative study, however, in that we also are looking at change over the first three years of teaching and what most influences this change.

Mixed-Method Data Collection Strategy as a Pragmatic Approach

We have taken a pragmatic approach to data collection in that we have purposefully gone after different types of data to best answer our specific questions. In this mixed method approach we have employed a wide variety of data collection methods, including:

- Attitudinal surveys;
- Open-ended questionnaires;
- Self-rating instruments;
- Classroom-observations;
- Individual interview protocols;
- Teacher Portfolios (extended work samples with student learning data);
- K-12 student work sample portfolios;
- Focus groups;
✓ Artifact review;
✓ Extant data on school and district demographics;
✓ Classroom demographic description forms.

We also have used a mixed method approach to do the following:

- **Verify** (We will have more confidence in our data and results if we find similar or the same results from more than one source.

- **Complement** (Using data from alternate sources can show alternate perspectives, which together form a more complete picture of reality); and,

- **Expand** (Both quantitative and qualitative data have limitations in and of themselves, and by combining data we can reveal effects or results not apparent in either data set alone.)

While this approach has many advantages, it also places an extra burden on data analysis and interpretation.

**Analytic Approach**

We are attempting to capture what these first year teachers believe, how they think, how they practice, the context in which they are teaching, etc. That is, we want to know as much as we can about each teacher studied, and identify any and all differences.

We are then taking a retrospective look at the differences we have identified and see if these differences are in any way related to differences in emphasis given to the characteristics of preparation programs described previously, as well as how teachers perceived their preparation program generally.

We also are seeing if these identified differences in what these first teachers believe, how they think and how they practice are in any way related to differences in the quality and quantity of the learning of their students.

**Subjects Under Study**

The depth of inquiry proposed within the project, and the level of funding available, necessitated a relatively small sample size. We chose to focus solely on elementary (grades K-5) teachers as a means of keeping the overall sample size large enough to conduct various analyses we wanted to pursue. Two cohorts of beginning teachers were recruited to give as wide a representation as possible within the overall sample in exposure to the preparation emphases of interest.

**Cohort 1**

The first cohort of participating teachers were recruited during the summer and fall of 1999. Two hundred and twenty-five teachers were identified by school districts as fitting the profile needed for the research. Of these, 74 agreed to participate. During the course of the first year, 6 participants terminated their participation in the study, resulting in 68 fully participating beginning teachers. Of these sixty-eight:

- 60 were prepared within Oregon and eight were prepared outside of Oregon. Of the sixty prepared within Oregon, 33 were prepared at public institutions and 27 were prepared at private institutions. This distribution is shown in Figure 1.

**Figure 1. Origin of Cohort 1 Participants**

![Figure 1. Origin of Cohort 1 Participants](image)

- The nature of the institutions from which the first cohort of teachers graduated is shown in Figure 2. The largest group of participants graduated from regional public colleges and universities.
• Of the 68 participants, 35 were prepared in undergraduate programs and 33 in graduate programs.
• Of the 68 participants, 57 were females and 11 were males.

Cohort 2
The second cohort of participants were recruited during the summer and fall of 2000. We purposely recruited only teachers who had been prepared out of state to bolster our sample size in this category. Thirty-five teachers were identified by school districts as fitting the profile needed. Of these, 27 agreed to participate. Upon closer inspection, however, only 12 of those identified fit the profile we were seeking. During the course of their first year of teaching 3 of these terminated participation in the study. Of the nine remaining Cohort 2 teachers:

• One was prepared within Oregon and eight were prepared outside of Oregon;
• Four were prepared at research universities, one at a public regional university and four at a private liberal arts college;
• Five were from undergraduate preparation programs and 4 were from graduate programs;
• Six were female and three were male.

First Year Teachers
The total number of first year teachers in the study is 77 (68 from cohort 1 and 9 from cohort 2). The origin of these 77 participants is shown in Figure 3.

The nature of the institutions from which our first cohort of teachers graduated is shown in Figure 4.

Second Year Teachers
The total number of second year teachers in the
study is 60 (53 from cohort 1 and 7 from cohort 2). The origin of these 60 participants is shown in Figure 5.

The nature of the institutions from which our second year teachers graduated is shown in Figure 6.

- Thirty-one of these teachers were prepared in undergraduate programs, 29 in graduate programs.
- Eleven are male and 49 female.

Third Year Teachers

The total number of third year teachers in the study (teachers remaining in cohort 1) is 44. Of these 44 teachers:

- 5 were prepared out-of-state; 20 were prepared at Oregon Public institutions and 19 were prepared at Oregon Private institutions.
- Nine were prepared in research universities, sixteen in regional public colleges, 12 at private liberal arts colleges and 7 at religious affiliated colleges.
- Twenty-four of these teachers were prepared in undergraduate programs and 20 in graduate programs.
- Seven are male and 37 female.

Factors Related to Attrition

Of the 86 beginning teachers who at one time had agreed to participate in the study, 35 terminated their participation (41%). Three of these individuals essentially changed their minds regarding participation prior to the onset of data collection. Fourteen indicated that continued participation was simply too much work on top of teaching. Three identified either family or personal medical reasons for leaving the study, and three left due to maternity leave. Two moved out of state.

We simply lost contact with ten participants over the course of the summers. When we contacted their school for the previous year, no forwarding address was available, though in some cases we were informed that the individual had left not only the school, but teaching.

Attrition rates varied somewhat by type of institution in which preparation occurred. This is shown in Figure 7.
• Attrition rates have varied from 27% for individuals prepared at Private Liberal Arts Colleges to a full 50% for those prepared at Research Universities.

• Over half of the males (53%) taking part in the study have dropped out. This compares to 37% of the females.

• Finally, while 34% of individuals prepared in graduate programs have dropped out of the study, 46% of those prepared in undergraduate programs have done so.

Summary

The TEP-2 project was designed to determine whether different emphases in teacher preparation programs make a difference in the practice and beliefs of beginning teachers and the learning of their students within the context of standards-based schools. The project also was designed to study the developmental experiences of beginning teachers and the factors that influence early career performance and change. We have characterized the research as both a retrospective, causal-comparative study and a follow along study employing mixed-methods of data collection. We have studied beginning elementary teachers from a variety of preparation programs from within and outside of Oregon. The levels of attrition suffered by the project varies by type of institution attended, gender and level of program.

References

