EXAMPLE OF RESEARCH QUESTION AND DATA COLLECTED IN A PREVIOUS RESEARCH STUDY

Value Added Teacher Preparation Assessment Model: A Bold Step Forward in Preparing, Inducting, and Supporting New Teachers

Qualitative Research Study (2007-2009)

Research Question for Teacher Survey Data Identified in Qualitative Research Study:

9. Do teacher preparation programs with *effect estimates* at Performance Level 1 and Performance Level 2 have lower mean scores on survey tools due to the reflective/critical thinking of their effective new teachers? *(Note: Performance Level 1 and Performance Level 2 were new teachers whose students performed at or above the performance level of student taught by experienced teacher – they were effective new teachers.)*

Table 7

Means and Standard Deviations by *Overall Effectiveness Bands* for Surveys

Areas	*Lowest Performance* – Less than 25th Percentile			Between 25th and 75th Percentile			*Highest Performance* - 75th Percentile and Above		
	Mean	N	SD	Mean	N	SD	Mean	N	SD
Planning	3.11	9	0.73	3.22	30	0.71	3.10	10	0.76
Management	3.40	9	0.67	3.14	30	0.81	3.33	10	0.44
Instruction	3.47	9	0.47	3.28	30	0.52	3.31	10	0.60
Assessment	3.00	9	0.66	2.82	30	0.60	2.98	10	0.87
School Improvement	2.96	9	0.81	2.74	30	0.76	3.10	10	1.01
Professional Development	2.83	9	0.83	2.98	30	0.76	3.35	10	0.71
Content	3.22	9	0.83	3.07	30	0.91	3.10	10	0.88
LA Curriculum	3.36	9	0.88	3.22	30	0.60	2.93	10	0.74
Overall Program	3.33	9	0.71	3.07	30	0.98	3.30	10	0.95
Teacher Survey Total	3.28	9	0.50	3.12	30	0.47	3.20	10	0.58

Note: The 41 items in the survey were aligned to the Louisiana teaching standards (i.e., Components of Effective Teaching). New teachers were asked to respond to the question: "How much opportunity did you have to do each of the following within your teacher preparation program. An example of a specific item under the category "Planning" would be: Specify learning objectives in terms of clear, concise student outcomes. A four point scale was used by the new teachers when responding to the survey items.

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The following is found on pages 35 and 36 in the report and can be found at the following URL: http://regents.louisiana.gov/wp-content/uploads/2013/09/Qualitative_Report9.24.09-Yr6.pdf

X. Implications for Future Research

Many new research questions have been generated as a result of the qualitative research study. The Qualitative State Research Team has determined that the current research study needs to be expanded beyond the areas of mathematics and English/language arts to science and social studies. Additional information needs to be collected from all campuses; however, the questions need to be more specifically directed to the teaching of content areas. In addition, in-depth case studies of programs that have *effect estimates* at Performance Level 1 and Performance Level 2 are needed to identify factors that impact the success of their programs. A need exists for researchers to ask probing questions about the specific strategies being utilized within the programs and to probe deeper into responses that were initially provided about the program structure. Additional data are also needed from new teachers who have completed the post-redesign programs to identify those practices that have had the greatest impact upon their effectiveness as new teachers.

New research questions for further study include the following:

Quantitative Effect Estimates

1. If teacher preparation programs attain lower *effect estimates* in a specific content area (e.g., mathematics) for a specific pathway (e.g., Master of Arts in Teaching), are the *effect estimates* low for multiple grade spans (i.e., grades 1-4; grades 4-8; grades 6-12) or just one grade span?

2. Do *effect estimates* for cohorts of teachers from institutions change over time once teachers have completed their third, fourth, and fifth years of teaching?

3. Are *effect estimates* for alternate and undergraduate programs similar in specific content areas at the same institutions when results are available for both pathways? If not, do longitudinal data indicate that the results change over time?

Program Structure and Curriculum

4. What content-specific pedagogical strategies that are content specific are being used by faculty/staff in teacher preparation programs with *effect estimates* at Performance Levels 1 and 2?

5. For programs with effect estimates at Performance Levels 1 and 2, what specific strategies are being used to prepare new teachers to be reflective and think critically while working with students in school-based settings?

School-Based Support

6. What specific types of follow-up support are being provided by individual faculty/staff/school personnel to assist teacher candidates and new teachers as they apply information from their teacher preparation programs to teach students in schools?

7. How are school-based teaching assignments in specific content areas structured for candidates prior to student teaching or internships and how are candidates evaluated in programs that have *effect estimates* at Performance Levels 1 and 2.

Faculty/Staff

8. What specific types of backgrounds and experiences do faculty/staff have in specific content areas within programs that have *effect estimates* in specific content areas at Performance Levels 1 and 2?

Teacher Survey Data

9. Do teacher preparation programs with *effect estimates* at Performance Level 1 and Performance Level 2 have lower mean scores on survey tools due to the reflective/critical thinking of their effective new teachers?

10. Are significant differences found in dispositions of new teachers in the area of mathematics with a larger sample of new teachers whose *effect estimates* are at the top and bottom quartiles?

Retention

11. Do retention rates of program completers differ within specific pathways for post-redesign teacher preparation programs that have high and low *effect estim*ates? If so, why are new teachers leaving?

12. What is the attrition rate of teachers who attain Practitioner Teacher licenses within specific pathways for post-redesign teacher preparation programs? Why are teachers leaving programs that have high attrition rates?

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Abstract

The Louisiana Board of Regents was awarded a two-year grant from the Carnegie Corporation of New York (2007-09) to conduct a *quantitative research study* to fully develop and implement a value added model to assess the effectiveness of teacher preparation programs and to conduct a *qualitative research study* to understand why some teacher preparation programs prepare new teachers who are as effective or more effective than average experienced teachers. This was a collaborative partnership involving the Board of Regents, Board of Elementary and Secondary Education, and Louisiana Department of Education.

Studies conducted by Dr. George Noell and his research team at Louisiana State University and A&M College have described a new Value Added Teacher Preparation Assessment Model that uses Louisiana's *i*LEAP and *LEAP* testing program and predicts student achievement based on prior achievement, demographics, classroom, and school factors. Then, it calculates *effect estimates* that identify the degree to which students taught by new teachers from different universities showed achievement similar to students taught by experienced teachers when considering prior achievement, demographics, classroom, and school variables. During the last three years, the quantitative research team has identified seven post-redesign teacher preparation programs (i.e., Louisiana College, Louisiana State University at Shreveport, Nicholls State University, Northwestern State University, Southeastern Louisiana University, The New Teacher Project, and University of Louisiana at Monroe) who have attained scores (i.e., *effect estimates*) that indicate that their new teachers are preparing students whose achievement in one or more content areas is comparable to or greater than the achievement of students taught by experienced teachers.

Louisiana is unique for it is the only state in the nation that is using results from a value added assessment for teacher preparation and using qualitative research that is linked to the assessment to identify ways to create highly effective teachers. In addition, it is the only state that has implemented more rigorous certification requirements for teachers and required all public and private teacher preparation programs to redesign their programs to address the new requirements. As of July 1, 2003, teacher candidates have only been allowed to enter post-redesign teacher preparation programs, and the new value added model is being used to evaluate the effectiveness of post-redesign teacher preparation programs.

A Qualitative State Research Team led by Dr. Jeanne Burns (Board of Regents) and composed of a researcher from every state approved teacher preparation program in Louisiana as well as other state personnel met between July 1, 2007 to August 30, 2009. This team refined questions for the qualitative study, created/selected instruments for the study, and collected, analyzed, and interpreted data to identify factors that impact the effectiveness of teacher preparation programs. The team addressed a set of research questions that were based upon assumptions that existed in Louisiana during 2006-07 about the preparation of new teachers. The assumptions were the following:

- Teachers with higher ACT scores will be more effective teachers.

- Effective new teachers will perceive that their teacher preparation programs better prepared them to address the state standards for teachers (i.e., *Louisiana Components of Effective Teaching*).

- Mentors of effective new teachers will perceive that the new teachers' teacher preparation programs better prepared them to address the state standards for teachers (i.e., Louisiana Components of Effective Teaching).

- Effective new teachers will score higher on scales that measure dispositions for teaching.

- Effective new teachers will score higher on scales that measure working conditions.

After collecting and analyzing data from all 22 teacher preparation programs in Louisiana and collecting data from a sample of new teachers who completed post-redesign programs, the study identified several key findings.

First, it is not the pathway (i.e., Master of Arts in Teaching; Practitioner Teacher Program; Non-Masters/Certification-Only Program) that explains the variance between teacher preparation programs; *it is what is occurring within the pathway to prepare new teachers in the specific content areas that makes the difference*. All three alternate pathways (i.e., Master of Arts in Teaching, Practitioner Teacher Program, and Non-Masters/Certification-Only Program) were offered at institutions that had attained *effect estimates* that were at the highest two levels in specific content areas (i.e., mathematics, science, social studies, language arts, and reading). In addition, within the same institutions, *effect estimates* were higher in some content areas (e.g., mathematics and science) than other content areas (i.e., reading, language arts, and social studies) even when the data were based upon some of the same teachers who taught grades 1-5 in all five content areas.

Second, existing data do not support previous state assumptions about the preparation of new teachers. As a result of post-redesign teacher preparation programs setting higher expectations for candidates to be admitted into programs and setting higher expectations for candidates to exit the programs, new teachers who completed the post-redesign teacher preparation programs are now more similar than different. Data indicate that new teachers who complete Louisiana's post-redesign teacher preparation programs now have ACT scores that are clustered around 20 or 21; yet teachers with similar ACT scores attended programs that had high *effect estimates* in specific content areas and lower *effect estimates* in other content areas. Survey data also indicate that significant differences do not exist in the responses of new teachers who have high and low *effect estimates* when asked survey questions about their dispositions, working conditions, and teacher preparation. Significant differences also do not exist in the responses of mentors of new teachers when asked questions about the dispositions of new teachers and their teacher preparation programs. Ratings on the teacher and mentor surveys were consistently high. Further analysis with larger samples of new teachers is recommended.

Third, state policies to create more rigorous teacher certification requirements and require all universities to redesign their teacher preparation programs account for more similarities than differences in program structures and curriculum for the three alternate pathways being offered

by universities and private providers. The study determined that all three pathways required candidates to pass the same Praxis Basic Skills (Reading, Writing, and Mathematics) examinations and Praxis Content examinations to enter the programs. They also required all candidates to pass the same Praxis Principles of Learning and Teaching examinations to complete the programs. In addition, all three pathways required candidates to address the same elements (i.e., Knowledge of the Learner and Learning Environment, Methodology, and Internship/Student Teaching) and address the same teacher standards (i.e., *Louisiana Components of Effective Teaching*) and K-12 content standards. Most new teachers in alternate programs were the teachers of record in their classrooms and spent a similar amount of time teaching students while completing their programs. Although courses/seminars differed across programs, all candidates were expected to complete the programs after gaining similar knowledge about teaching and learning. The major difference in the three pathways was the delivery mode.

Fourth, teacher preparation programs are already using scores from the value added assessment to make changes to programs that impact grades 4-9 teachers in mathematics, science, social studies, English/language arts, and reading. Teacher preparation programs in Louisiana were encouraged to be innovative when redesigning their programs to better address the needs of teachers and students. All post-redesign programs assumed that they were doing an effective job in preparing new teachers, and the *effect estimates* provided hard data to validate their assumptions. The *effect estimates*, combined with a careful review of data about the program structure, curriculum, and faculty, helped faculty/staff and administrators within post-redesign programs identify strategies to improve the effectiveness of their programs.

Fifth, better retention is being exhibited among teachers who have completed undergraduate and alternate certification programs in Louisiana. Although longitudinal retention data are not yet available for post-redesign teacher preparation programs due to the newness of the programs, data for 2003-04 new teachers from Louisiana-based programs show a retention rate of around 84% by the third year of teaching as compared to a retention rate of 75.8% for teachers with degrees from in-state and out-of-state institutions. However, the attrition rate of teachers who attain Practitioner Licenses while serving as the teacher of record in schools and completing alternate certification programs is high. For a cohort of teachers who attained Practitioner Teacher licenses in 2003-04, only 55.6% of the teachers were a part of the state teacher data base by the third year and only 35.9% were a part of the state teacher data base by the sixth year. The cause of the attrition is unknown.

Sixth, more in-depth research through case studies of effective programs in specific content areas will be needed in the future to acquire the depth of knowledge necessary to identify key factors that impact effective new teachers. Results of this study have helped to filter out factors that were previously assumed to be important in Louisiana; however, more in-depth research is needed to isolate key factors. This study has helped to identify new research questions that delve deeper into how new teachers are being prepared to teach specific content areas and identify new research questions that can only be answered through the use of longitudinal data bases.

Although the scope of the current study was limited by the small number of post-redesign programs that have new teachers who have taught for one or two years, future studies will have a richer data base as new teachers complete post-redesign programs each year and teach for one or two years. As teacher preparation programs continue to work collaboratively to identify and address important factors that impact teacher quality, the effectiveness of new teachers and the achievement of their students will continue to increase.