

# USING TEXAS PRINCIPALS' PERCEPTIONS OF NOVICE AND EXPERIENCED TEACHER NEEDS TO INFORM PROGRAM DEVELOPMENT

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## Abstract

*The purpose of this mixed methods descriptive study was to examine how to enhance our initial teacher education program and graduate programs. Two hundred and sixty-five principals participated in a survey that provided insight on the areas where novice and experienced teachers needed additional knowledge and support as well as providing their ideas on the big issues or trends in Texas schools over the next five to ten years. There were unique needs as well as common areas for growth for novice and experienced teachers. Unique needs for novice teachers were not unexpected. Those included areas such as classroom management, understanding the TEKS for their grade level, and the Professional Development and Appraisal System (PDAS). Unique needs for experienced teachers included using technology effectively in teaching as well as collaborative teaching and learning strategies. Common areas where professional growth were needed was in effectively using data in planning and teaching, working with special populations such as special education, economically disadvantaged children, and ELL/Bilingual students, and working with ELL/Bilingual parents. This study indicated that educator preparation programs must work to purposefully include targeted instruction and experiences in these areas. This study also provides evidence of the need for teachers to individualize their professional development opportunities.*

Keywords: novice teachers, professional development, program development

Providing the children of our nation with high quality educators is a moral imperative for educator preparation programs. For this to occur, teacher educators must constantly discern what is effective in their programs, what is missing, and what programmatic changes need to be made in order to provide schools with educators who can effectively meet the needs of all K-12 students. Determining the effectiveness of an educator preparation program requires data from a variety of sources, such as educator candidate data, state and national accreditation standards, and feedback from stakeholders. Because context is such an important component in teaching, it is critical that input from stakeholders from

multiple contexts be garnered as educator preparation programs are assessed. One valuable group of stakeholders that can capture a variety of contexts is school principals. This mixed methods descriptive study was designed to seek the insight of Texas school principals in terms of what they perceive are the areas of growth needed for novice and experienced teachers as well as what are the most important educational trends or issues for the upcoming five to ten years. Specifically, a survey was created and distributed to principals to gather their input on areas where novice and experienced teachers needed additional knowledge and skills.

The purpose of this mixed methods descriptive study was to examine how to enhance our initial teacher education program and graduate programs. Through a survey of campus principals, we specifically sought to address the following research questions:

1. What are the perceptions of Texas principals regarding the needed knowledge and skills of beginning teachers (zero-three years' experience)?
2. What are the perceptions of Texas principals regarding the needed knowledge and skills of experienced teachers (more than three years of experience)?
3. What do Texas principals think are the most important trends in education for the next five to ten years?

### **Background and Review of Literature**

To ensure that we prepared a survey of critical knowledge, skills, and dispositions of effective teachers that was aligned with best practices according to research and with the requirements for teaching in Texas, we examined the literature and the Texas Administrative Code. (Texas Administrative Code details all standards and curriculum that should be taught in Texas public schools. Compliance of this code is monitored by the Texas Education Agency.) We also noted that it was important to consider the differences between novice and expert teachers. Texas Administrative Code defines novice teachers as those having three or less years of experience. Experienced teachers are those with more than three years of experience in the classroom.

Teaching is often described as a messy and complex task. Not surprisingly, the way in which teachers go about teaching and addressing the problems of practice differs based upon variables such as experience, time in teaching, understanding of teaching, and even personality. What can be stated as fact is there is a difference between the knowledge, skills, and dispositions of expert and novice teachers. Researchers such as Glaser (1990), Bransford, Brown, and Cocking (2000), and Berliner (2001) have examined essential tenets regarding characteristics of novice and expert teachers. Some of these key principles noted across multiple research studies are that expert teachers are more opportunistic and

flexible in their teaching, sensitive to the demands and social situations surrounding them when problem solving, represent problems differently, and have faster and more accurate pattern recognition capabilities (Berliner, 2001).

Clearly, gleaned what is determined to be basal in terms of novice teacher understanding is critical for initial educator preparation programs. Educator preparation programs preparing educators seeking advanced certification or programs (e.g. principal certification, reading specialists, etc.) must have an understanding of how to build programs of study that continue to move the educator to a higher level of expertise. Hence, faculty in educator preparation programs must constantly delve into research to ensure that their programs of study deliver curricula that provide the critical foundational knowledge, skills, and dispositions on which educators can grow and develop as well as meet accreditation requirements.

Determining what a highly qualified teacher is and what comprises high quality teacher education programs have been topics of discussion for teacher educators for years. Not only have those serving as stewards of the discipline worked to provide guiding tenets and characteristics of high quality teacher education programs but policy makers generate legislation and policies influencing the design and implementation of teacher education programs (Paige, 2002). Imig and Imig (2007) describe three approaches taken by the teacher education profession to determine the curricula for high quality teacher education programs. These methods include expert consensus building approach (Goodlad, 1990), research-based approach (Wilson, Floden, & Ferrini-Mundy, 2001), and a professional consensus approach (e.g. InTASC and NBPTS). The professional consensus method is frequently used by states to determine the criteria for teacher licensure (Imig & Imig, 2007).

The state of Texas uses a professional consensus approach to determine requirements for teacher licensure along with additional requirements added by the Texas legislature. With this approach, the curricular requirements for Texas initial teacher certification often leaves gaps in terms of the required preparation for teachers prepared for today's classrooms. For educator preparation programs to ensure that appropriate, high quality programs of study are being offered, insights from the professional literature on educator preparation and stakeholders from the K-12 educational system must be sought to fill those gaps. To determine major categories not sufficiently covered in the required teacher education curriculum, we researched the literature for areas that are frequently problematic for novice teachers. Our review of the literature highlighted the following areas of concern regarding the effectiveness of many novice teachers in the United States and internationally: classroom management (Christofferson & Sullivan, 2015; Eisenman, Edwards, & Cushman, 2015; Stough, Montague, Landmark, & Williams-

Diehm, 2015), effective literacy practices (Burnett, 2011; Lycke, Hurd, & Husband, 2015; Xu & Brown, 2016), general teaching strategies (Kelly, Gningue, & Qian, 2015; Khan, Khan, & Saleem, 2015; Shoulders & Krei, 2015, and working with special diverse learners (e.g. English Learners, special needs) (Harper & deJong, 2004; Leko, Brownell, Sindelar, & Kiely, 2015; Russell, 2015; Sebald & Rude, 2015. These themes from the literature, along with the Texas required educator preparation curricula (described in the next section), formed the major components for our survey.

The state of Texas provides a legislatively mandated curriculum for educator preparation programs to use in the preparation of the state's teaching force. As defined by Texas Administrative Code (2016), the content of the state required curriculum for initial teacher preparation programs parallels the Texas Educator standards for in-service teachers along with four other components. The curriculum for candidates seeking initial teacher certification is to include:

1. Reading instruction
2. The code of ethics and standard practices for Texas educators
3. The skills and competencies captures in the Texas Educator Standards that include:
  - a. Instructional planning and delivery;
  - b. Knowledge of students and student learning;
  - c. Content knowledge and expertise
  - d. Learning environment;
  - e. Data-drive practice; and
  - f. Professional practices and responsibilities
4. Instruction in detection and education of students with dyslexia
5. Instruction in detection of students with mental or emotional disorders

Using the information from our review of literature and required curricula for initial teacher preparation in Texas, we designed a survey to send to Texas principals.

## **Methods of the Study**

### **Survey Development**

A 37-item, two-part survey along with a demographic section was created to determine what principals thought were areas where additional preparation was needed for novice and experienced teachers. The list of items was generated using the outline of the required curricula in Texas and then writing items that meet specific elements of the criteria.

For the quantitative section of the survey, 35 items were created using a Likert scale. Respondents were asked to rate the need for additional preparation for both novice (zero-three years of

experience) and experienced teachers (>3 years of experience) on a five-point scale anchored by the terms “No Need” and “Great Need”. Following completion of the first part of the survey, respondents were asked to respond to two open-ended items regarding additional items that they deemed important but that were not included in the initial part of the survey and their perception of the three most pressing issues or trends that they and their faculties will need to address in the next five to ten years. These two items comprised the qualitative data used in this study.

After creation of the survey, a validity check was conducted using a field review by a panel of eight current principals. Panel members completed the survey and gave the researchers feedback on the adequacy of the survey items to address the research questions of the study and the logistical adequacy of the survey in terms of clarity, ease of completion, and general survey format. After receiving this feedback, the researchers made final revisions and deemed the survey ready for implementation.

### **Participants**

Participants in this study were 265 active principals of Texas public schools. A list of email addresses of all active principals in Texas was obtained from the Texas Education Agency through a paid Open Records request. In all, nearly 4,500 requests were made for principals to provide their perceptions via an email survey. The low response rate (5.8%) was disappointing; however, inspection of the demographic breakdown of the respondents revealed that the sample was fairly representative of the population of principals in Texas. Table 1 provides the demographic information for the participants along with data on Texas principals as collected by the Texas Education Agency.

Table 1

*Demographics on Participating Principals*

Category	Survey Participant Data	State Data if available
Level of School	Elementary: 56% Middle/Junior High: 21% High: 23%	Elementary: 48.79% Middle/Junior High: 21.09% High: 26.43%
Type of School	Traditional: 88% Charter: 4% Other: 8%	Non-Charter: 93% Charter: 7%
Location	Urban: 26% Suburban: 40% Rural: 34%	Urban: 31.3% Suburban: 40.6% Rural: 28.1%
Gender	Male: 36% Female: 64%	Male: 37.5% Female: 62.5%
Years of Experience	Minimum: 1 year Maximum: 36 years Median: 7 years	
Free/Reduced Lunch	Minimum: 1% Maximum: 100% Median: 64%	
Number of Students in School	Minimum: 43 Maximum: 3,000 Median: 522	

**Procedure**

After receiving approval from the institution's Institutional Review Board (IRB), the study commenced. In May 2015, emails were sent to all principals of Texas public schools inviting them to participate in the survey. The cover letter included a general description of the purposes of the study, logistical and contact information for the researchers and the Chair of the IRB, and a link to the survey. Upon clicking the link to the survey, respondents were asked to reaffirm their agreement to participate in the survey and then began responding to the survey items. Responses were completely anonymous. A follow-up email was sent to all participants in June 2015, to remind potential respondents of the request to participate.

**Limitations and Delimitations**

A major limitation in this study is the small sample size. Data were collected in May-June of 2015. Those months were a time of record rainfall over a long period of time in Texas which created tremendous disruptions in many school districts. This is likely one underlying cause of the limited

response rate. A delimitation of the study was that principals received the email invitations to participate in this study at approximately the same time when the Texas Education Agency was sending principals required reports to complete. This was certainly a timing error on the part of the researchers and certainly could have negatively influenced the participation rate of the study. Because of the low response rate, the generalizability of the study must be viewed cautiously.

### **Data Analysis**

#### **Research Questions 1 & 2**

This survey was designed to provide information related to Texas principals' perceptions of the needed knowledge and skills of novice teachers (research question 1) and expert teachers (research question 2). We initially planned to analyze the data for each research question independently but the results caused us to realize that presenting the results separately and then combined provided a richer view of the data.

The initial analysis involved generation of descriptive data for the first section of the survey where respondents provided their perceptions of the items in a Likert format. Mean ratings for items were then sorted from highest to lowest for perception of need for additional preparation/professional development. These data were then used to generate a list of the ten highest need areas and the ten lowest need areas for both novice and experienced teachers, and are presented in Table 2 and 3. In the case of ties, all items were included in the list.

Table 2

*10 Highest Need Areas for Novice and Experienced Teachers*

Novice Teachers	Experienced Teachers
1. Using data in planning	1. Using technology in teaching
2. Using formative data	2. Using formative data
3. Working with special learners - IEP	3. Using data in planning
4. Working with special learners - 504	4. Working with EL/Bilingual students
5. Implementing student accommodations	5. Using data in instruction
6. Classroom management Using data in instruction	6. Collaborative learning strategies Working with EL/Bilingual parents Working with special learners - 504
7. Problem solving with parents	7. Project/problem based learning
8. Problem solving with students	8. Collaborative teaching strategies
9. Increasing literacy proficiency Understanding TEKS	9. Working with special learners - IEP
10. Working with EL/Bilingual students	10. Deep reflection on teaching

Table 3

*10 Lowest Need Areas for Novice and Experienced Teachers*

Novice Teachers	Experienced Teachers
10. STEM education Understanding school law/rules and regulations	10. College and career readiness standards
9. School culture	9. Understanding TEKS Working with families
8. Using technology in teaching Competency-based education	8. Communication skills
7. College and career readiness standards	7. Competency-based education School culture
6. School safety	6. Understanding school law/rules and regulations
5. Using flipped classroom design	5. Classroom management
4. Using technology for administrative purposes	4. Using technology for administration purposes School safety
3. PDAS	3. Hybrid teaching
2. Hybrid teaching	2. Online teaching (virtual courses)
1. Online teaching (virtual courses)	1. PDAS



As is clear from inspection of the data, while there was some overlap in the high and low areas of need for experienced and novice teachers, there were also many differences. In the most needed categories, items related to working with special learners, using data, and working with EL/Bilingual students and/or parents were common themes. In the least needed categories, understanding school law/rules & regulations, school culture, competency-based education, college and career readiness, school safety, using administrative technology, professional development assessment system (PDAS, the Texas teacher evaluation system), and hybrid and online technology were common themes.

There were also a number of areas of need that were unique to the responses of the principals for experienced and novice teachers. In the most needed category for novice teachers, implementing student accommodations, classroom management, problem-solving with parents and students, increasing literacy proficiency, and understanding the Texas Knowledge and Skill standards (TEKS) were noted. For experienced teachers in this category, using technology in teaching, collaborative learning and teaching strategies, project- or problem-based learning, and deep reflection on teaching were noted. In the least needed category for novice teachers, STEM education, using technology and using flipped classroom design were noted. In this category for experienced teachers, understanding TEKS, working with families, communication skills, and classroom management were noted.

A second analysis was conducted in order to reduce the data to reflect underlying factors in the responses to the survey. A Principal Components Analysis (PCA) with an oblique rotation (promax) was conducted to examine the factor structure of the principals' responses on the preparation needs survey using methodology and reporting guidelines suggested by Field (2009). Initially, we conducted separate analyses for principals' responses regarding novice teachers and experienced teachers. After finding that the factor structures for the two sets of items were virtually identical, we pooled the items and repeated the analysis.

The Kaiser-Meyer-Olkin measure verified the sampling adequacy of the analysis, KMO - .929. Bartlett's test of sphericity Chi-Square – 9720.064,  $p < .001$ , indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component of the data. Eight components had eigenvalues over Kaiser's criterion of 1 and in combination explained 69.755% of the variance. The eight components, factor loadings, and Cronbach's alphas are presented in Table 4. The factors identified in the PCA provide a good picture of the structure of the survey. They also support the construct validity of the study, as they mesh nicely with the required curriculum elements for educator preparation programs specified by the Texas Education Agency on which the survey was based.

Table 4

*Factor Structure with Variance Information*

Factor	Variance (%) Accounted For	Cronbach's alpha
1. Instructional Skills for Special Learners (Children of Poverty, ELs, IEPs or 504s)	39.895	.918
2. Using Data to Inform Planning and Practice	6.941	.905
3. General Instructional Issues	5.168	.820
4. EL/Bilingual Issues	4.381	.863
5. STEM Issues	4.179	.750
6. Collaborative Teaching/Co-Teaching	3.463	.695
7. Online/Hybrid/Flipped Teaching	2.997	.795
8. T-TESS (new Texas Teacher Evaluation System)	2.731	NA
Total	69.755	

**Research Question 3**

Research question three was addressed through the open responses principals gave to the prompt of what are three of the biggest trends or issues that Texas schools will need to address over the next five to ten years. Nearly all of the participants provided a bulleted list of items. To analyze the data, every response was listed with repeated responses being tallied next to the response (e.g. Classroom management – listed six times). Once this list was generated, two qualitative researchers, including one that did not participate in this study, independently examined the list to determine if there was a group of overarching themes or categories that could capture the items given by the principals. The two researchers independently created categories of ideas and then listed the items that would fall within that category. At that point, the researchers listed items in multiple categories to try and capture the essence of the possible category. Once both researchers finished their lists, they came together and examined the two documents. First, there was a discussion related to the themes found by the two researchers. Initially, there were six categories. The researchers discussed the items listed for each category and then came to consensus on how to merge themes. The researchers took these common categories and then independently sorted the items to the different categories. Again, once this was done, we compared lists for each category. Where there were differences in the placements of items, the researchers examined both categories and discussed the rationale for inclusion of the item in each category. After three iterations of discussions related to the categories and how to best place the items, the researchers agreed

upon four major categories: 1) Effectively working with diverse students and families; 2) Instructional issues; 3) School-based educational issues; and 4) State and Federal policy issues. There were a total of 71 unique items presented by principals and each was placed within a single category with no item being listed in more than one category.

In the category of Effectively Working with Diverse Students and Families, there were 18 unique items. The most frequently reported items included the following: Increase in the number of Special Education students with 504/IEPs (20), Teaching Children of Poverty (12), Adapting to Changing Student Diversity/Demographic (12), Working with English Learners (10), Student Motivation Issues (10), Family Issues (e.g. emotional, trauma, drugs, crime) (5), Family and Community Engagement (4), Parental Involvement (4), and Dysfunctional Student Behavior at School (2). Other items listed involved the success of African American students, male students, improving communication with students, colleagues, parents, and communities to improve student learning.

The Instructional Issues category was the largest category with 35 unique items. The most frequently listed items included the following: Technology Integration (29), Using Data to Inform Instruction (7), Problem/Project Based Learning (7), Classroom Management (6), Fluency/Reading/Literacy (6), Cooperative Learning (5), Differentiated Learning (4), Higher Order Thinking Skills (3), Closing the Achievement Gap (2), Changing from Traditional Pedagogy (2), Increasing Effective Instruction (2), Flipped Classrooms (2), RtI/Intervention Strategies (2), and Critical Thinking (2). Items that were listed a single time included teaching soft skills, virtual teaching, online courses, digital citizenship, social media in teaching, teaching problem solving, and student led instruction.

The Policy Issues category had 13 unique items. The most frequently mentioned items included: Decreased Funding for Schools (6), College and Career Readiness Standards (6), Increased Accountability Requirements (4), Changing TEKS (Texas State Standards) (4), and Retention of Good Teachers (4). Singly listed items included: Choice in Educational Providers (competition to public schools), Dual Credit Concerns, Fewer Quality Teacher Applicants, Dual Language Programs, and Shared Sustainable Systems with Higher Education Partners. The School-Based Educational Issues was the smallest category with 5 unique items. These included School Personnel Working Together in PLCs (3), Campus Discipline Issues (3), Campus Culture (2), Bullying (1), and Focusing on Continual Campus Improvement (1).

### Discussion and Implications of Findings

As we examined the data for the top ten areas of need for novice versus experience teachers, we noticed that in many ways, principals might be viewing novice teachers from a viewpoint of survival and being able to “just do the job” (Ngang, Kanokorn, & Prachak, 2014). When looking at these areas of needs improvement, there are clear areas where we see that experience matters (e.g. rapid use of data, working with parents, dealing with unexpected situations in classrooms.). Clearly, experience in these kinds of teaching situations does matter; yet, teacher educators can build in more scenarios and simulations where preservice students have the opportunity to practice in these situations. By providing preservice teachers experiences that relate to the effective use of data in planning and instruction, problem-solving with students and parents, and working with various special populations of students in a risk-free environment, a higher level of confidence and proficiency will be developed.

The data presented here suggest that novice and experienced teachers have both common and unique needs for additional preparation or knowledge development to be perceived as highly effective teachers. Common needs for novice and experienced teachers include knowledge and skills centered around the themes of working with special learners, using data in planning and instruction, and working with EL/Bilingual students and parents. From a higher education perspective, these data suggest that programs at the undergraduate and graduate levels should seek to strengthen their coverage of content and practice in these areas.

All of these themes are included within the state required curricula; yet, there are areas where the curricular requirements could be met without truly addressing the needs of students. For example, the Texas educator standards requirements specifically state that teachers will be able to work with “today’s learners”. When examining the Texas performance data (TEA, 2015), the two student groups that perform the worst on the 2015 STAAR (the state accountability test) are the largest student groups in the state. The largest student group in Texas are students who are economically disadvantaged (58.8%) and they score the lowest of all student groups. The next largest student group are Hispanic students (52.0%) and they score only higher than the economically disadvantaged students. African American students also consistently scored low on the STAAR test. This clearly shows that Texas educator preparation programs must purposefully include instruction on providing instruction and working effectively with families and communities that are economically disadvantaged, Hispanic, and African American. This was noted in the data for all three research questions and is clearly a need for undergraduate and graduate educator preparation programs to change programs of study to better meet this need.

Unique needs of novice teachers include implementing student accommodations, classroom management, problem solving with parents and students, increasing literacy proficiency, and understanding TEKS. Educator preparation programs must strive to improve instruction in areas that are often difficult to teach when the preservice teacher does not have full control of the situation or environment. Therefore, educator preparation programs must look at other methods such as coaching through video of our students in the field and computer simulations of situations. Unique areas of need for experienced teachers (using technology in teaching, collaborative teaching and learning strategies, project- or problem- based learning) may not have covered adequately (or at all) when these teachers completed their undergraduate preparation. This finding has implications for both graduate curriculum and in-service professional development offerings.

Areas of least need for novice and experienced teachers are somewhat more difficult to interpret. In some cases, areas that are seen as most needed for novices (classroom management and understanding TEKS) are seen as least needed for experienced teachers. Other areas (STEM education, using flipped classroom design, and using technology in teaching) may reflect the coverage that these areas get in contemporary teacher education programs. Still other common areas of least need (PDAS, online/hybrid teaching, using technology for administrative purposes) may simply not be relevant at this time.

It is interesting that many of the top needs for novice and experienced teachers were also documented by Texas principals as big issues or trends for the next five to ten years. Principals documented the increase in challenging student populations (e.g. special education, EL/Bilingual students, children of poverty) and how to provide effective instruction for these students. The use of technology, collaborative learning environments, and data to prepare and teach meaningful and engaging lessons to students was noted. Again, these are all areas where undergraduate and graduate educator preparation programs can provide foundational and advanced learning for teachers.

In addition, these findings suggest that as schools, districts, and other organizations design professional development programs for teachers, a “one size fits all” approach is not the most effective approach to take. This is also noted in research on professional development that a customized approach is more effective (Desimone, 2009; Webster-Wright, 2009). Novice and experienced teachers do indeed share some preparation needs, but they also have some unique needs that must be addressed. Effective, targeted professional development activities can be a much more powerful tool than a more general approach.

### **Conclusion**

The results of this mixed-methods descriptive study provide educator preparation programs with insights into the perspective of Texas principals as they work in the teaching and learning environments of schools. By honoring the voices of these important stakeholders of Texas educator preparation programs, we gain a new understanding of how we can position our curricula in a context that best serves the schools in our state. This study also provides wisdom on the professional development needs of our novice and experienced teachers. We must continue Goodlad's (1990) ideal of mutually beneficial relationships between schools and educator preparation programs.

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