What They Didn't Teach Us: New Teachers Reflect on their Preparation Experiences

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This article describes findings from a qualitative, practically-focused study of how novice teachers perceive the relevance and effectiveness of their teacher preparation coursework. Interviews and focus groups were conducted with fourteen teachers at two highly diverse elementary schools in an urban area. Participating teachers were in their first, second or third year of teaching, and administrators and teacher mentors were interviewed to provide background information and corroborating input as well. Teachers indicated they felt well prepared in areas such as lesson planning but poorly prepared with respect to skills such as data analysis and relationship-building with students and families. This article concludes with recommendations for improved teacher preparation in areas related to both university coursework and field-based placements.

Keywords: urban education; teacher preparation; higher education; diverse learners; university partnerships.

Teacher retention, an area of ongoing concern in the profession, is often dependent at least in part on new teacher skills (Inman and Marlow, 2004). teachers are often at risk for burnout and attrition (Chestnut and Burley, 2015). One potential reason for burnout among new teachers may be the stressful environments in which they are disproportionately likely to find themselves: new teachers are most likely to teach in high-need schools, including those with high rates of poverty or low numbers of students meeting academic standards (Gagnon and Mattingly, 2012), requiring well-developed skills on the part of those teachers who have had least opportunity to develop their skills. As teacher retention, along with student achievement, continue to be high-priority issues in education reform, teacher preparation programs have been acknowledged to play an important role in solving both problems (National Council for Teacher Quality (NCTQ), 2013). Teachers who are well-prepared are better positioned to remain in the profession (Mayer, 2019) and to positively impact student achievement.

Partnerships between universities and schools play a central role in ensuring teachers are well-prepared in

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terms of knowledge, skills and dispositions (Darling-Hammond, 2000). It is widely acknowledged that teacher preparation programs must adapt to new mandates regarding accountability, curriculum and assessment, as well as to changing demographics and increased student diversity (Duncan, 2010). The need for such adaptation has pushed some programs to add coursework addressing diversity, improve teacher induction programming for graduates, lengthen the timeframe for preparation and licensure, and increase field experiences in highly diverse settings, all initiatives designed to ensure teachers are prepared to positively impact student achievement and be successful in their chosen profession. (NCTQ, 2013). Teacher preparation programs, by their nature, must balance strong conceptual and theoretical preparation with opportunities for practical application. In many programs, students typically balance on-campus coursework with field experiences which become gradually more intensive throughout their program. However, many teacher preparation programs also face the reality that opportunities for field experience may be limited by factors beyond program or student control; availability of mentor teachers with sufficient experience and willingness, and school capacity for such partnerships, cannot be taken for granted. As the field continues to grapple with the most effective ways to prepare teachers for today's diverse schools, it is critical to listen to the voices of those students who

have recently completed teacher preparation programs and are now teaching in those diverse schools.

Teacher Preparation, Needs and Trends in Induction

New Teacher Needs and Support

Duncan (2014) found that particularly in high-need districts, schools and areas, new teachers' development and needs were related to school and community culture, underscoring the importance of university partners' awareness of community and school variables in order to ensure continuity between preparation programs and placements for new teachers. Kidd, Brown and Fitzallen (2015) conducted a mixed method investigation of new teachers' perceptions and experiences relative to induction. While teachers generally appeared to have positive experiences with induction, they also reported a wide range of supports, some extensive and some rudimentary. Additionally, participants perceived formal mentoring or induction plans to be less available than they would like. According to Gagnon and Mattingly (2012), new teachers are more likely than experienced teachers to find jobs in high-need, high-poverty and diverse school systems. Teacher turnover continues to be an issue in such districts, leading to a cycle in which new teachers continue to be hired in those settings most likely to challenge any educator, but particularly a novice one. Reitman & Karge (2019) found that teachers believed the support they received as new teachers was critical in their decision to remain in the profession. Therefore, support is widely considered to be critical for new teachers; however, districts continue to struggle with effective implementation (Gardiner, 2012). Gardiner found that continued coaching (2012)individualized support can be key to teachers' ongoing development. Providing such support can be challenging, though, for the schools where it may be most helpful and necessary; schools with significant numbers of students in poverty often are unable to provide effective mentoring and coaching support as they have more demands on their resources. Those schools with positive relationships in place among staff members did appear to offer more effective induction (Gaikhorst et al, 2014).

New Teacher Self-Efficacy and Skills

As found by Chong, Loh and Mak (2014), teachers' self-efficacy, and their own beliefs about their effectiveness, often vary widely. While it is possible to

measure such beliefs and gauge teachers' progress (Chong et al., 2014), it is also equally important to provide new teachers with support and mentoring during this critical period. In investigating alternative certification programs, Consuegra, Engels and Struyven (2014) found that an on-the-job learning experience frequently failed to provide the kind of embedded, scaffolded learning opportunities that are typical in many teacher internship programs. Moulding, Stewart, and Dunmeyer (2014) found that pre-service teachers' self-efficacy was connected to factors such as their student teaching field site and the support they received from mentors. Strong preservice experiences can impact both teachers' skills and their feelings of self-efficacy (Ng et al., 2018).

Continued attention to teachers' growth and development is particularly important, because teachers' skill acquisition can vary among teachers (Choy et al, 2015). Teachers may also experience conflict between what they learned in the academy and what they are required to do in their jobs, impacting not only their skills but also their beliefs about their skill level and preparation for their role as teachers. This tension can be seen, for example, in the way that teacher preparation programs present lesson and curriculum planning, as opposed to the way that new teachers are often introduced to curriculum guides and pre-designed lesson plans at the district level. Bauml (2015) found that new teachers often uncomfortable when required to follow scripted or tightly structured curriculum guides, preferring instead to rely on their own professional judgment as they had been taught to do in their recent preparation programs. This finding also suggests the importance of using a curriculum guide, in its proper context, as an aid to successful planning rather than as a rigid, proscribed formula which cannot be modified—a topic often under-addressed in teacher preparation curricula despite the widely acknowledged importance of curriculum-based planning (Bauml, 2015). factors have particular relevance to teacher selfefficacy as they have potential not only to make teachers more effective but to provide them awareness of their growing proficiency. Skillful use of a curriculum guide to create instructional procedures or materials demonstrates a level of instructional skill that cannot necessarily be inferred from delivery of a prescripted lesson. As novice teachers become aware of their own ability to use resources and design effective instruction, the development of these skills can have a positive impact not only on instruction but also on their awareness of their own skills relative to it. Teachers'

self-efficacy is also related to their perceived skills in the area of classroom management, particularly at the beginning of their career (Lazarides et al., 2020). Research on self-efficacy, in general,

Teacher Preparation Programming

Teacher preparation programs continue to come under scrutiny, as educational reform efforts become established across the country, for the quality and rigor of their programs for pre-service teachers (NCTO, 2013). The quality of programs, and their ability to expose teachers to various perspectives, forms of diversity, and curriculum approaches, plays a significant role in the dispositions and quality of new teachers (Bischoff, French and Shaumloffel, 2014; Kidd et al., 2014). For example, beginning teachers are increasingly required to be proficient in collecting, analyzing and interpreting, and planning with various types of student performance data, from lesson summative assessments to high-stakes testing and curriculum-based measurement probes (Mandinach, 2012); such observational and data-collection skills are particularly important for assessment and instruction of high-need students (Yurkewicz, 2014). However, this proficiency with data has not often been explicitly addressed in many teacher preparation programs (Mandinach and Gummer, 2013), despite increasing needs for teacher competency in these areas on the part of local school systems.

Methods

This qualitative interpretive research consisted of interviews and focus groups at two linguistically, culturally and racially, and socioeconomically diverse elementary schools, including primarily new teachers but also incorporating interviews with administrators and mentors to gain background information and correlate teacher perceptions.

Purpose and Research Questions

The purpose of this study was to describe how new teachers perceived their licensure programs as preparing them for their work in high-poverty schools, including gaps that new teachers identified in their preparation programs and recommendations they provided for improving teacher preparation. The research questions included:

1) What do new teachers report to be most challenging in their first three years?

- 2) In what areas do new teachers feel their certification programs prepared them well?
- 3) In what areas do new teachers feel their certification programs did not prepare them well?

Framework

The paper is grounded in constructivist theory, in which individuals have a powerful role to play in their educational experience (Crotty, Constructivist principles, which underlie the design and structure of many teacher education programs, underscore the importance of learners' own experiences and perspectives at all stages of the learning process. Frequently, teacher education programs incorporate learner feedback into their formal and informal evaluation processes through such mechanisms as course evaluations, alumni surveys, and even surveys of principals and building administrators working with new teachers. However, few studies have solicited qualitative feedback from novice teachers, focusing on those working in socioeconomically diverse communities or high-need schools, about how well-prepared they perceive themselves to be. Such feedback, in a constructivist view, is an essential element in our ongoing evaluation of teacher preparation efforts. This paper also draws on sociocultural theories (Vygotsky, 1978), which emphasize the importance of teaching and assessment practices responsive to the growing diversity among our student population. In a socio-cultural framework, it is the responsibility of the teacher—and of teacher education programs—to adapt existing beliefs and practices to meet the needs of all learners, rather than focusing on methods traditionally used for majority-culture students. A socio-cultural approach, then, emphasizes the importance of continuous self-reflection and selfevaluation for teacher educators, including the critical step of soliciting feedback from those working in diverse schools.

Sites and Participants

This study was conducted at two elementary schools, each of which had highly diverse student populations in terms of language, culture and race/

ethnicity, and socio-economic status. Sites were selected based on their participation in a university partnership program which focused on new teacher induction and support over the first three years. Demographics of sites are provided in Table 1. As sites

were selected based on their participation in a partnership, demographic patterns reflect general socioeconomic, racial and ethnic diversity but also vary across schools.

Table 1 Demographics of Site Schools.

	School 1	School 2
Teachers	20	27
Total Enrollment	350	623
Black/ African-American Enrollment	38	199
Latinx Enrollment	109	51
White Enrollment	168	306
Two or More Races	22	53
FARMS Enrollment	303	507
Limited English Proficient	66 F	ewer than 10 not reported
Special Education Enrollment	36	106
Schoolwide Reading Proficiency Target	Met	Met
Schoolwide Math Proficiency Target	Met	Not Met

Both schools had ongoing challenges with student achievement which building administrators had addressed with initiatives including technology integration, emphasis on student engagement, and relationship-building efforts with families.

Methodology

This exploratory study utilized a qualitative approach in order to capture participants' experiences and describe particular facets of those experiences (Maxwell, 2004; Merriam, 2009). Two group interviews were conducted, one at each school, involving a 60-90 minute interview with participants. The first group included eight teacher participants; the second included six. A semi-structured interview protocol (Kvale and Brinkmann, 2014) was used in order to allow the conversation to adapt to points raised by participants in the course of the interview. Administrative staff at the first school participated in the first group as well. One-on-one interviews with teacher mentoring personnel, approximately thirty

minutes in length, at each school were conducted prior to the focus groups in order to gain background information and a general understanding of the school Member-checking via email occurred with teacher participants following group meetings. In addition, some teacher participants participated in individual semi-structured or unstructured interviews, ranging from fifteen to forty-five minutes, to provide additional information following the group interview. These individual interviews were scheduled based on convenience, and teacher participation was limited due concurrent school testing and professional development schedules. Participation in these interviews was open to any participant who had time and expressed willingness to participate. There were no additional selection criteria for interview participation.

All but one participant completed traditional teacher preparation programs; one participant completed an alternative certification route. A majority of participants had completed in-state preparation programs, a fact relevant to teachers' perceived grasp of state curriculum standards. One of the participants

had completed an initial certification program in special education. The remaining participants were certified as general elementary educators or elementary educators with concurrent endorsement in a content area (frequently required for middle-school educators, but not elementary educators, in the state in which the study took place). One participant was male, and the remaining thirteen were female. No participants had grown up or been educated in the community within immediate proximity (5 miles) of the school.

Interviews were recorded where participants provided consent. At one school, participants did not consent to recording and the researcher took detailed notes and member-checked notes with participants to ensure accuracy. Qualitative analysis was performed, identifying codes within interviews and then aligning, grouping and consolidating codes across interviews (Maxwell, 2004; Merriam, 2009) to determine key and recurring themes: those directly related to the research questions or those articulated by more than one participants. Themes and concerns articulated by teachers at both research sites were reviewed carefully, as these indicated concerns or teacher perceptions that may be present across school sites and could have relevance to school communities beyond the site where they were articulated.

Results

Chief among the areas in which new teachers perceived their preparation to be lacking were relationship-building skills for students and families of culturally, linguistically, or socioeconomically diverse backgrounds. Additionally, teachers reported needing training in the analysis and use of informal assessment data, an area in which teachers must understand students' diverse backgrounds to avoid inappropriate decision-making.

Teacher participants reported the following as perceived strengths in their preparation programs:

- Instruction in lesson planning, particularly planning engaging or interactive lessons
- Differentiation of instruction for students at varying levels within the same group (participants separated special education issues, involving more intensive supports and individualization, from generalized issues of differentiation)
- Big-picture understanding of Common Core instruction, including instructional shifts and overarching concepts such as expository writing and informational text.

Participants also reported common areas of need across focus groups and school sites as well as across certification areas (general vs. special education). These included the following:

- Day-to-day planning in context of a curriculum guide
- Classroom management
- Special education issues generally
- Specific strategies for students with academic or behavioral needs
- Data analysis
- Use of informal assessment data in a meaningful fashion
- Relationship-building with students and families

Field experience

The one participant who had completed an alternative certification program noted feeling it was different from traditional certification, which impacted the participant's feelings about being well-prepared. Participants in traditional programs agreed that the field experience, including both the full-time student teaching experience and the field practicum experiences leading up to student teaching, was the most important component of their program in terms of preparation. Teachers linked their perceived preparedness to the types of schools in which they had completed field experience. One teacher, who grew up in an affluent area but was placed in a Title I school during her final year in her preparation program, described her reaction on walking into her field placement with a friend: "We didn't know places like this existed." Additional participants cited the quality of their mentor teachers as an important factor in how well-prepared they felt. One participant described being "shielded" from aspects of teaching such as paperwork or dealing with families, stating that she felt unprepared for her first year of teaching as a result. "In my student teaching, my mentor never really exposed me to paperwork," she stated.

Informal assessment and use of data

With respect to informal assessment, teacher skills and perceptions varied. Several participants commented that they felt comfortable with the general parameters of informal assessment. One participant, for example, stated that she felt "very comfortable with exit tickets" and "knew how to use the data (that was) collected." A student whose program had recently

transitioned to using the edTPA instrument for candidate assessment commented that she felt assessment was "drilled into" students in her program and therefore she felt proficient in various elements of informal assessment. However, at least three participants referenced data analysis as an area of relative weakness in their teacher preparation programs, indicating they had not been exposed to indepth processes or procedures for collecting, analyzing or using student data, particularly quantitative data. "I knew it was important," said one participant, but she reported feeling lacking in the specific skills needed to utilize data in the classroom. One teacher stated it was hard to adjust or modify on the go "because I didn't know what mastery looked like" yet. participant stated: "I knew how to make nice pie charts, but not how to use the data (that was) in them." Generally, participants reported learning that data was important, but not learning specifics as to how to analyze data or use it to improve classroom instruction. It appeared that familiarity with best practices for data analysis depended, to some degree, on the access to data analysis experiences provided by the mentor teacher: "Our mentor teacher had us do (data analysis) all year," reported one participant.

Paperwork and organization

Additionally, participants reported that paperwork demands, traditionally an area of challenge for new teachers, made data analysis even more challenging and also provided to be overwhelming in general. One teacher recalled never really learning how to manage paperwork; she perceived her mentor teacher as shielding her from the paperwork demands of teaching. In the group discussion, more than one participant echoed the idea that mentor teachers had sheltered them from some of the organizational challenges of teaching, in large part to allow them to focus on understanding and delivering effective instruction.

Technology. As a group, candidates reported feeling "very well prepared" with technology. It is worth noting that one focus group was situated at a school experimenting with one-to-one device initiatives—technology was a whole-school focus and intensive professional development had occurred for the past two years on technology-related subjects. It is possible that this fact impacted teachers' perceptions of how well-prepared they were in this area at this site. Participants at the other site, which was not participating in such an initiative, also reported feeling well-prepared with respect to technology use.

Classroom management, particularly for students with behavioral needs

Many teachers reported feeling that they needed more preparation in special education (this state required 3 credits in special education for most licensure areas, and 6 credits for elementary education majors). One teacher stated: "I attended one IEP meeting in my internship, and then when I got here I had four in a row." Not surprisingly, teachers also reported classroom management to be an area of challenge, both for students with typical functioning and those with behavioral needs who were included in general education classrooms. One pair of teachers, who had begun at the school as first-year teachers together, reported that collaboration and teamwork helped them to work through their management challenges together: "We kind of learned (together) as we went...if you have a kid throwing chairs in your room, you just have to kind of figure out what to do." Another teacher recounted her learning curve and her beliefs as a first-year teacher: "I had an expectation that if you asked them to do something, they would do it." One participant described her preparation program as "not (giving her) a ton of resources" on positive behavior interventions and supports (PBIS). which the school had embraced as a management and instructional framework. Two participants reported that they felt well-prepared with respect to classroom management generally and PBIS in particular. One of these had worked as a long-term substitute prior to being hired as a full-time classroom teacher, providing her more practical and hands-on experience with classroom management. The other had completed concurrent coursework in special education, along with her general education program, which provided her additional training in **PBIS** and classroom management. Another participant, reporting changes in her general approach to management, stated that she became more successful as a teacher once she figured out how to "let the little things go," a process that included figuring out which management issues were "little" and which were significant enough to address.

Content and curriculum

Participants reported feeling confident in their bigpicture understanding of what the Common Core standards were, why they were significant and what some of the instructional shifts related to Common Core were. Teachers also reported experiences with lesson planning, particularly interdisciplinary or

interactive lesson plans, and differentiation of lessons for students at both ends of the achievement spectrum. According to several teachers (an understanding corroborated by administrators and teacher mentors), it important for teachers to have strong understanding of content, and teachers reported that in general, they did possess a strong base of content knowledge. However, this big-picture, broad-strokes understanding of curriculum and its importance did not necessarily translate into specific classroom-ready knowledge or skills. One teacher commented, "I knew what Common Core was....but I couldn't tell you much about it." Teachers also reported finding a disconnect between the type of lesson planning completed in their preparation program (thematic units, interdisciplinary lesson plans, etc.) and the type of teaching (aligned to daily district curriculum or program curriculum) they did on a daily basis. Multiple participants reported that their preparation programs had given them experience planning isolated lessons but had not provided them the opportunity to become proficient in the type of planning that they actually did day-to-day as teachers, working from a curriculum guide and planning in conjunction with other grade-level team members.

Relationships

Teachers reported that relationship-building, with students and families, was an area of challenge. A few participants commented that relationship-building was easier because their first-year mentor in the school site had provided explicit support with this area. Across the board, participants recognized the importance of positive relationships with families and with students. One participant commented, "Teaching is all about building relationships" and "trust." Another participant commented that the importance of relationships was discussed frequently in her preparation program, but "how-to guidance" was rarely provided, with few explicit strategies presented for building relationships with families and students.

Closely linked with relationship-building, for many participants, was an accurate understanding of socioeconomic and cultural diversity. Both school sites had invested staff time heavily in professional development, over the two years prior, addressing some of the characteristics, strengths and needs of socioeconomically diverse students and communities. Perhaps as a result, participants were able to articulate of accurate importance knowledge understanding in this area and the value of responsive teaching. At the same time, they readily described what they perceived as shortcomings in their preparation programs, both with respect to relationship-building and to working with students and families from diverse backgrounds generally. One participant stated bluntly that she had not felt prepared for her teaching experience, as she had no experience during her preparation program working with a culturally, racially and socioeconomically diverse population: "I had no clue what to do (when I first began teaching here). An internship at a Title I school would have helped." One participant also described the importance, for her and her colleagues, of having the "same expectations for all students" with "no prejudice," a perspective that she says she developed after working with her students for her first year. It was important, said this participant, to "let go of judgments and preconceptions."

Additional perspectives provided by participants on this topic included one teacher who said, "My students need love—and structure," expressing the importance of both for building relationships. Another commented on the challenges she felt working in her particular school community: "It is hard to get students to invest in their own education."

Participants, generally, identified areas significant strength in their teacher preparation programs, specifically in strengthening conceptual understanding of general topics such as differentiation and instruction, including the shift to Common Core-based instruction. At the same time, they did identify significant areas for improvement, particularly in practical areas of implementation such as data analysis, organization and paperwork, and classroom management.

Discussion

Concerns regarding new teacher preparation, particularly with respect to diverse learners and those with special education needs, are well documented in the literature (McKinney, 2009; National Education Association, 2012). Ongoing conversations about teacher preparation, in fact, continue to gain significance in light of educational forms such as the shift to new standards, new assessments, and new teacher evaluation frameworks. Likewise, it is hardly a novel idea that new teachers struggle with classroom management or organization and paperwork. Nevertheless, the input of new teachers, speaking candidly about their perceptions of areas in which they were well-prepared and areas in which they struggled, is valuable and adds an additional context and voice to the larger discussion in the field on these topics.

Constructivist models of teaching and learning require that we consider the learner's perspective and, in fact, adapt instruction to the learner's needs.

Teacher identified general strengths in their preparation program, across certification areas, subjects and program location. These included a general emphasis on overarching ideas and principles: the importance of relationship-building, the value of differentiation and careful planning. **Programs** appeared also to be responsive in adopting new vocabulary, frameworks and models associated with the growing emphasis on school reform (including edTPA, Common Core curriculum, and Common Core-aligned assessments). New teachers reported familiarity with these general concepts and with their importance, reflecting that their programs had adapted to some of these new initiatives as they were introduced by federal, state and perhaps local governments.

However, confirming the general trend in the field, participants reported feeling under-prepared with respect to specifics and practical application. As some participants reported, their exposure to day-to-day logistics related to organization, paperwork and data analysis appeared to be largely dependent on their mentor during the final full-time internship experience. Some participants reported being exposed to significant amounts of paperwork, some virtually none. Some participants described co-planning with their mentor and collaborating on a regular basis; some described a different experience, with limited or infrequent opportunities to co-plan and collaborate in designing or delivering instruction.

Teachers' perceptions regarding the role of data analysis in their preparation programs resonate with findings of other studies and reports (NCTQ, 2013). Data analysis has been given more attention in recent years, particularly among programs which have adopted candidate assessment models such as EdTPA. However, the role of data analysis in student instruction, support and decision-making remains largely unexplored in teacher preparation coursework, one in which many higher education faculty, whose school experience may have occurred a decade or more ago, are less proficient than their P-12 colleagues. Some reports suggest this trend is changing, as schools and programs add classes, emphasis areas and even degrees in data analysis and assessment issues. The ongoing importance of data analysis in P-12 settings suggests that programs must continue to emphasize this skill and find new ways to integrate it into the curriculum. The findings of this study also suggest it is important not simply to give lip service to data but rather to engage teacher candidates in rigorous, handson activities which convey both the importance of data and the practicalities of engaging in data analysis.

Teachers also reported varying perceptions regarding curriculum and content. In general, participants voiced concern that the type of planning taught at the university level, in which candidates design their own lesson plans based on one or two given curriculum objectives, is not well aligned to the type of day-to-day, curriculum-dependent, team-oriented planning that occurs in many elementary schools currently. Most participants stated they had no experience working from a curriculum guide prior to their first school experience, despite the fact that nearly all school districts require teachers—particularly new ones—to faithfully follow the prescribed curriculum. Similarly, candidates reported few experiences in which they collaboratively planned a lesson with a team, instead completing numerous individual lesson plans and other assignments. For those candidates who were exposed to curriculum guides, collaborative practices and the like, that exposure largely came in the form of the student-teaching/ internship mentor. Programs might fruitfully consider emphasizing collaborative planning based on actual district curriculum guides, encouraging teachers to look critically at those resources and consider how to utilize them in light of best practices already covered in their preparation coursework.

Indeed, across the board participants referenced their mentor and final field practicum experience as two of the most formative elements in their preparation program—despite the fact that they encountered these elements only in their final semester. Mentor teachers are considered to be central to this experience for new teachers, yet many programs continue to struggle to secure sufficiently experienced mentors; to train mentors in alignment with current best practices addressed in the university curriculum; and equally important, to leverage mentors as a source of expertise for ongoing professional development of university faculty.

Recommendations and Conclusion

The findings of this study suggest several areas for continued investigation and follow-up study. First, the importance of field placements, while well established in the literature, is further corroborated by this study. It is recommended that universities continue to collaborate with institutes of higher education, and alternative certification providers, to ensure access to

experienced mentors. The participants' comments about exposure to diverse communities and schools must also be taken into account here. In an ideal situation, student teachers would have access to skilled and experienced mentors working in Title I or socioeconomically diverse settings. Such opportunities are particularly important given the high probability that novice teachers are more likely to end up in struggling schools. those in socio-economically communities, or those with high teacher turnover. Placing teachers with strong mentors, in diverse communities, may also be a practical way to help candidates acquire needed skills in relationshipbuilding and working with families as well as students. As part of such initiatives, teacher preparation programs must give careful thought to cultivating positive relationships with schools in diverse communities and strengthening professional development partnerships with schools in order to develop a cadre of competent, skilled teachers familiar with higher education program, staff and curriculum.

Additionally, it is critical for teacher education programs to engage with data, providing preservice teachers not only with an understanding of data's importance but of how to conduct data analysis, best practices for handling and organizing data, and different methods for representing, reflecting on, and utilizing data. These skills also dovetail with collaborative skills, as data analysis is frequently a collaborative process in which professionals must communicate effectively and share responsibility for data analysis and utilization. Related to issues of data analysis, but not exclusive to those issues, teacher preparation programs must also continue to engage with practical skills such as organization and paperwork management. While many programs incorporate a focus on larger, more over-arching concepts, it appears that preservice teachers feel wellprepared in those conceptual areas but feel unprepared in practical areas. Additional emphasis on these skills in preservice coursework, along with more and rigorous field experience, may help to address this issue. Clinical approaches to curriculum, which pair exploration of concepts with multiple opportunities for practice (in both higher education settings and P-12 classroom settings) may offer one avenue for improvement in this area.

Finally, teacher preparation programs may do well to spend more time learning from P-12 educators about how planning occurs in most schools. It is true that teachers should own the skills to plan a lesson

carefully, competently, and on their own. It is also true, though, that new teachers are equally in need of guidance when it comes to working with a district curriculum guide, figuring out how to adapt that overarching document to the needs of their own students, and teaming with other educators in order to plan and implement lessons from the curriculum guide. It is easy to see a benefit in incorporating this emphasis while also helping teachers to remain aware of best practices and principles for lesson planning.

This study also suggests some continued challenges and questions for the field to consider as a whole. These include:

- How do we prioritize among placing students with experienced mentors and placing students in diverse and high-need schools where experienced teachers may be in short supply? As described earlier, in a perfect situation, teacher preparation programs would have access to both. If they cannot have both, which is more important, and which criteria should be used to evaluate effectiveness of mentors or appropriateness of field settings?
- Are students better served by exposing preservice candidates to overarching best practices or to specific, curriculum-guide-level content? If both, how do we accomplish this, and how ought the two skills to be balanced and sequenced in a multi-year teacher preparation curriculum? How can programs prepare teachers to utilize curriculum guides and district resources appropriately while also encouraging them to evaluate those resources thoughtfully in light of current pedagogical and social-justice theories?
- How important should logistical skills, such as organization and paperwork, be in the student teaching experience? The teachers interviewed described their learning in these areas as almost exclusively "on the job," rather than seeing these areas as topics for explicit, focused instruction during the preparation period.

As teacher preparation continues to change, in order to ensure teachers are prepared for twenty-first century curriculum, it is likewise important to continue to critically examine our practices and the effectiveness of our efforts. One important means of reflecting on teacher education is to listen to the voices of our students as they reflect on what they did—and didn't—learn from their preservice experiences. For this

reason, it is imperative to engage in further study and discussion, whether through replicating this study or through other means, of new teachers' perceptions, self-efficacy and preparedness.

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Appendix 1. Group Interview Questions

Questions

- 1. Thank you for taking the time to be here. First, can each of you share a little bit about your grade or subject area and your background as a teacher?
- 2. What kind of teacher preparation did you complete (traditional or alternative)?
- 3. As you reflect on your experiences as a novice teacher, particularly in your first three years, what were some of the areas in which you felt well-prepared?
- 4. What were some of the areas, if any, in which you did not feel well-prepared, or you would have liked more preparation?
- 5. If you had the opportunity, are there any changes you would recommend to teacher preparation or certification programs to ensure teachers are prepared for diverse classrooms?
- 6. As you reflect on your work with your teacher mentors, do you feel that support has been helpful to you? If so, how?