AISD Reach: Mentoring Practice and Novice Teacher Outcomes, 2010-2011

Department of Research and Evaluation

AUSTIN INDEPENDENT SCHOOL DISTRICT

EXECUTIVE SUMMARY

The 2010-11 school year marked the third year of piloting an enhanced mentoring program for novice teachers at 19 high-needs AISD Reach schools. In 2010-11, the program provided 27 mentors whose primary, full-time job was to provide high-quality individualized professional development opportunities, guidance, and classroom support to cohorts of up to 10 1st, 2nd, and 3rd year teachers. Approximately 270 beginning teachers (BT) were supported through a coaching model that included collecting, analyzing, and reflecting on teachers' and students' data, planning collaboratively, and setting professional goals. Mentors and BTs engaged in non-evaluative, learner-centered relationships, with a focus on accelerating the development of the novice teachers' skills, while supporting the campuses' academic goals and vision.

The goal of the current project is to examine mentors' practice to address (a) the particular mentoring activities that are most closely aligned with teacher retention and teaching effectiveness and (b) the underlying explanatory variables that connect mentoring practices to teachers' and students' outcomes. Results of these analyses will inform the expansion of the AISD Reach mentoring model districtwide. Since Fall 2010, a gradually increasing number of campus-based mentors in AISD have been trained in the AISD Reach model. Because the campus-based mentors are not full-release mentors, the implementation of the program on those campuses looks different from program implementation on AISD Reach campuses. For this reason, it is important to understand how the program works, and which activities are most closely related to positive outcomes for novice teachers and their students. This report is organized around the following key questions:

- How do mentors and BTs spend their time together?
- How do mentors and BTs value various aspects of their work? What are their perceptions of the impact of their work on students' learning?
- How do ratings of impact align with the amount of time spent pursuing each type of activity?
- How do ratings of impact and the amount of time spent pursuing each type of activity align with actual students' growth?
- How do these activities influence BT retention?

Although some questions remain, the data do suggest that classroom observation and feedback, and the activities that are directly related to diagnosing and improving classroom behaviors (e.g, work on classroom management), are critical to BT's experience of feeling supported, to their feeling that they are having an impact on students, and to BT's retention. Data did not support the conclusion that they also improved student learning; however, future data may yet reveal that relationship. Several limitations to the present data help support the notion that there is more to learn.

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PROJECT OVERVIEW

The Office of Educator Quality for the Austin Independent School District (AISD) has committed to making support and rewards for teachers at highest needs schools a priority through the implementation of the AISD Reach strategic compensation program. Among the supports offered by this program is a novice teacher induction program based on the New Teacher Center's (NTC) comprehensive induction model. The 2010-11 school year marked the third year of piloting this enhanced mentoring program at 19 high-needs schools (as defined by the campus percentage of economically disadvantaged, limited English proficiency, and special education students). In 2010-11, the program provided 27 mentors whose primary, full-time job was to provide high-quality individualized professional development opportunities, guidance, and classroom support to cohorts of up to 10 1st, 2nd, and 3rd year teachers at these high-needs schools. Approximately 270 beginning teachers (BT) are supported through a coaching model that includes collecting, analyzing, and reflecting on teachers' and students' data, planning collaboratively, and setting professional goals. Mentors and BTs engage in non-evaluative, learner-centered relationships, with a focus on accelerating the development of the novice teachers' skills, while supporting the campuses' academic goals and vision.

Research and Program Evaluation

As part of the evaluation of the AISD Reach program, a team of researchers in the AISD Department of Research and Evaluation (DRE) has studied new teachers' induction in AISD for several years and has begun to quantify the impact of the mentoring program on outcomes (e.g., novice teachers' retention and effectiveness). Although DRE staff have been able to provide descriptive information about mentors' practice, as well as report on the retention rates and some student outcomes (e.g., state assessment performance) of novice teachers who received intensive mentoring, some significant gaps in this research remain to date. Specifically, research has not addressed (a) the particular mentoring activities that are most closely aligned with teacher retention and teaching effectiveness and (b) the underlying explanatory variables that connect mentoring practices to teachers' and students' outcomes. The goal of the current project is to examine mentors' practice to address these critical gaps, and to inform the expansion of the AISD Reach mentoring model districtwide. Since Fall 2010, a gradually increasing number of campus-based mentors in AISD have been trained in the AISD Reach model. Because the campus-based mentors are not full-release mentors, the implementation of the program on those campuses looks different from program implementation on AISD Reach campuses. For this reason, it is important to understand how the program works, and which activities are most closely related to positive outcomes for novice teachers and their students.

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•How do ratings of impact and the amount of time spent pursuing each type of activity align with actual students' growth?

•How do these activities influence BT retention?

Project Scope and Methodology

This project extended the AISD DRE 2010-2011 mentoring evaluation plan by combining existing data sources (i.e., human resources and student assessment databases, the mentoring activity database, and survey results) with intensive interviews and focus groups with BTs and their mentors (see Figure 1). Surveys, interviews, and focus groups were used to gather data about the value of various mentoring activities and types of support, from the perspective of both BTs and their mentors. Next, those results were analyzed in conjunction with data in the mentoring activity log/ database to determine the extent to which alignment existed between what teachers and mentors *said* was most valuable, the activities they spent the most time doing, and how critical the activities were to students' growth and BT retention. All database programming and analyses were conducted by the DRE team, while the focus groups and interviews were conducted by DRE and a local educational research firm and then transcripts were coded by DRE. A full description of all data sources for this project can be found in Appendix A.

Figure 1. Data Sources Used for the 2010-2011 AISD Reach Mentoring Program Evaluation
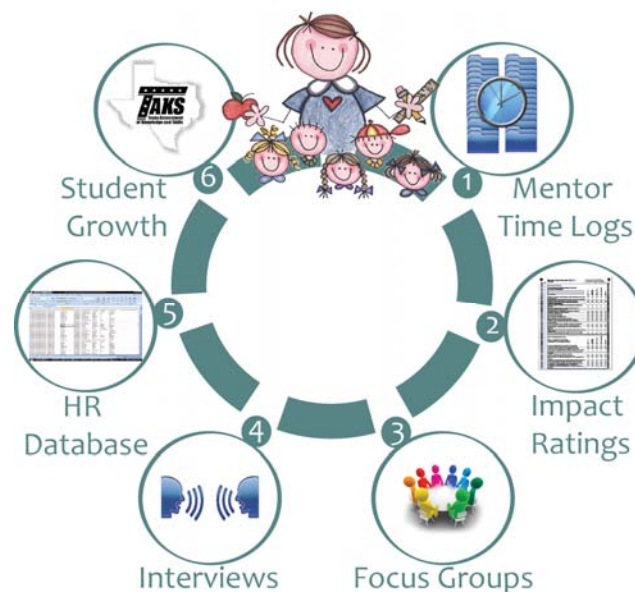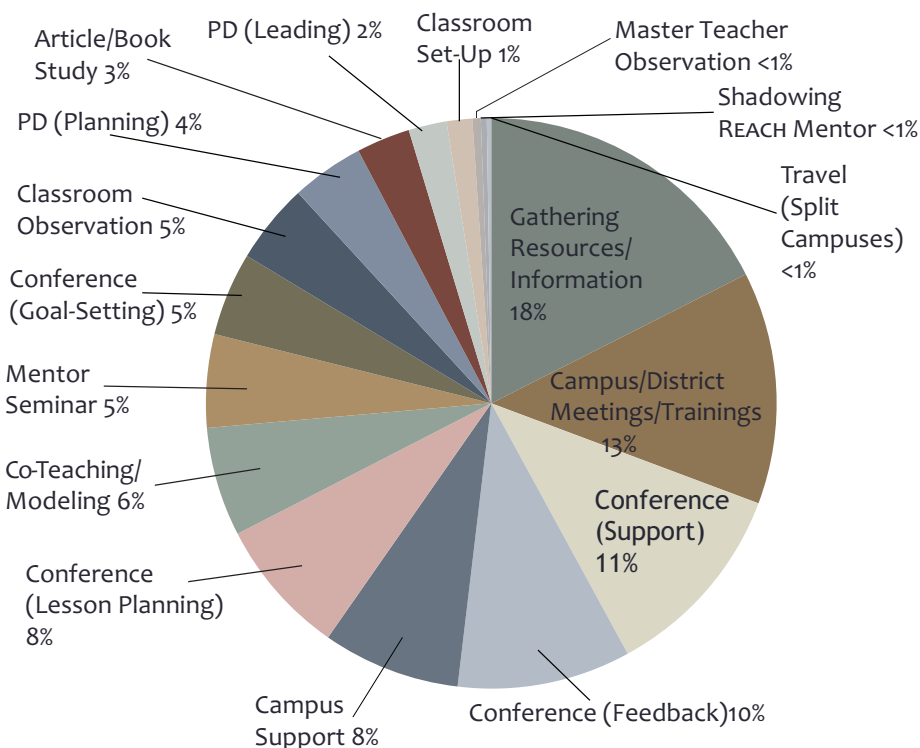
Results

How do mentors and BTs spend their time together?

Estimates of the amount of time spent on each activity over the course of the school year, as reported in the mentors' time logs, are displayed in Figure 2. The majority of time was spent on activities directly related to timely attention to instructional practice, (e.g. gathering resources, lesson planning, co-teaching/modeling, and classroom observation). However, nearly 1/3 of the time logged was spent on other types of activities, such as campus support, mentor professional development, and traveling between campuses. Although necessary, and at least indirectly beneficial to the BTs, it is surprising that such a high percentage of the mentors' time was spent away from (or merely in the presence of) their BTs.

Figure 2. Mentoring Activities Reported by Mentors, 2010-11

Article/Book Study 3%
PD (Planning) 4%
Classroom Observation 5%
Conference (Goal-Setting) 5%
Mentor Seminar 5%
Co-Teaching/Modeling 6%
Conference (Lesson Planning) 8%
Campus Support 8%
Conference (Feedback)10%
Conference (Support) 11%
Campus/District Meetings/Trainings 13%
Gathering Resources/Information 18%
PD (Leading) 2%
Classroom Set-Up 1%
Master Teacher Observation <1%
Shadowing Reach Mentor <1%
Travel (Split Campuses) <1%

Source: AISD Reach Mentor Time Log

How do mentors and BTs value various aspects of their work?

Of primary interest in this study was the impact of mentoring on students' learning and retention. The two data sources used to answer this question were the focus groups/interviews with BTs and mentors, and the Employee Coordinated (ECS) survey that addressed perceptions of the impact of various activities on students' learning.

Focus groups with BTs yielded three general categories of mentoring activities they valued most, and all were focused on what they learned through classroom observation and feedback. In particular, BTs often mentioned that they benefitted most from work related to classroom management/positive behavior support, work related to student engagement, and differentiated instruction. For example, teachers reported success in these areas, as mentors had "helped me maintain the students' attention throughout the lesson" and "[kept] the rigor high," and "helped me with understanding the importance of relationships with these kids, and strategies for how to get into their head." Two teachers described their most important learnings in this way:

> I'd say the most important thing I learned from my mentor, especially in year one, was developing a behavior management system in my classroom. … I had some kids who were really struggling with behavior and he helped set up a raffle ticket system for me. And it turned my class around like in two days. And that really freed up time for me to focus more on teaching because it sort of ran itself after that. So that was probably really the best thing my first year. (Teacher 1)

> We worked with a lot on classroom management I guess. But less on, you know I came in kind of prepared for what I was getting into. I think we worked more on the research space of classroom management. So we learned a lot on, he came in and videotaped me at random points. So we would sit and analyze student performance, student behavior during all different classes and different periods. So I think I learned how to be much more, to be specific, I think I learned how to be much more critical about my classes and how I can change what I am doing to better suit the needs of my students. (Teacher 2)

In-depth interviews with BTs and mentors yielded some interesting differences between those who had more and less positive experiences with the program. Both BTs and mentors with more positive experiences emphasized that the most valuable activities in which they engaged were related to feedback and observation, and that there was a very consistent, immediate system for providing data on what was happening in the classroom and guided conversation about improvement. One BT said:

> He would come in at any point in class and videotape. And he would videotape what I'm doing sometimes and he would videotape what the students are doing. He would target certain students. You know you have certain students in the classroom who are challenges for any number of reasons, right, not just behavior wise. So we would target those students and really try to look at how the consistency of

these techniques or the implementation of these techniques, how does that impact the student. (Teacher 3)

One mentor described how using instructional diagnostics can benefit the BT, and the mentoring relationship, in several ways:

[The seating chart tool] I kind of focus on when I'm beginning to take the data on a beginning teacher primarily because it focuses the majority on the students and so it's not very threatening or it's very nonjudgmental when I go to a new teacher and we look at the data and then that opens up a lot of entry points that I can talk about and we can get them to come to their own conclusions. (Mentor 1)

In contrast, when asked about the most valuable experiences that they had with their mentors, BTs who reported less positive experiences indicated that classroom observations and feedback also were their most valuable experiences; however, they emphasized how little time they spent with their mentor working in this way:

One of the most valuable things to me that I think is helpful for a mentor to do with their mentee has been her observation. That's not to say there were many but she did have a few observations where she did observe me and she provided feedback that was crucial to me to go back and realign my instruction. And kind of focus on certain things I need improving. There was a couple times where she provided some good feedback that really helped me along the way. (Teacher 4)

The above teacher's mentor described what she believes to be the most beneficial mentoring activity in this way:

[We] listen and read through their lesson plans piece by piece and analyze what is that going to look like? What is it going to look like for this group of students...What is it going to look like for this group of students? And what about Johnny? You said Johnny is always coming late to class. How is this activity going to help him get to class on time? Look at each activity with an eye to what to do for student's success. I think when we allow them to have the time to sit down and do that, that is one of the most beneficial things that is helpful to them in improving their classes. (Mentor 2)

Another BT who reported a less positive experience said,

Again, she hasn't spent a lot of time in my classroom other than on my off periods. And she hasn't given me much specific feedback on my teaching. One thing she did

do, in one of my classes that she recorded my teaching and recorded the students to see how they're responding so it only worked part way so we didn't get as much footage as we had hoped. But that was something that seemed like it would be very effective because it gives me a chance to watch what's going on and what... by having the camera facing students, it would give me a chance to see what their reaction is obviously with a classroom full of students your eyes can't be everywhere at once as much as you try. So that was something I thought, would be really beneficial so that I can see how I was improving as a teacher but also how my students were responding. (Teacher 5)
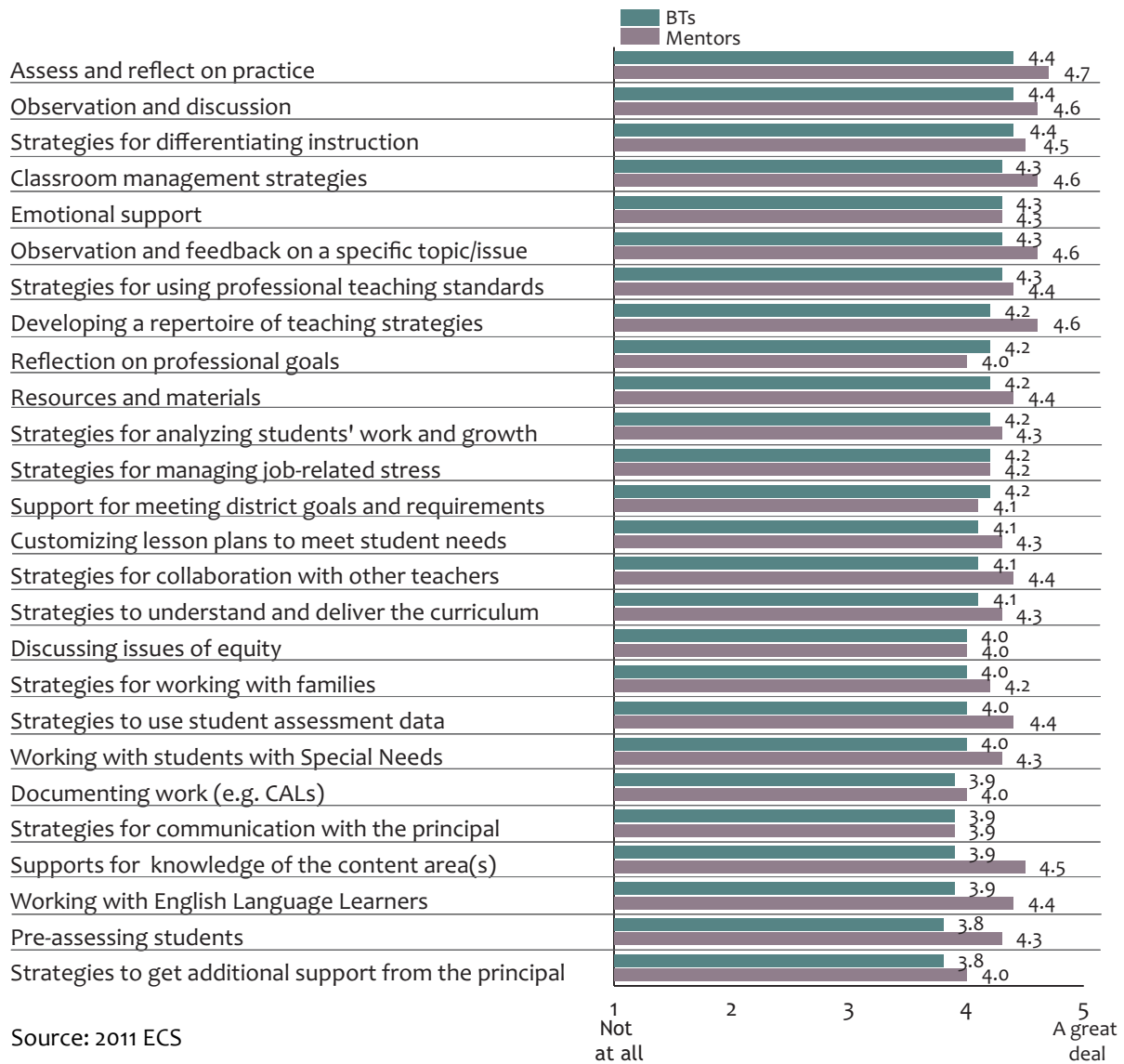
Overall, the responses from BTs in all interviews and focus groups suggested they value most the mentoring activities that involved classroom observation and subsequent feedback conferences, and that this was one of the issues that drives overall satisfaction with the mentoring experience for BTs.

What are mentor and BT perceptions of the impact of their work on student learning?

The ECS items were designed to measure mentors' and BT's perceptions of the impact of various mentoring activities on students' learning. Mean ratings for both BTs and mentors on each measured item are displayed in Figure 3. All items were rated on a scale from 1 to 5, ranging from "not at all" to "a great deal" Results were sorted from highest to lowest, based on the BT mean ratings of impact. Although BTs and mentors both rated most of these activities quite highly (i.e., most were at or above 4.0 on the 5 point scale), consistent with the focus group and interview results, BTs rated highest the activities that were most directly focused on observation and feedback and immediate attention to classroom practices (e.g., assessing and reflecting on practice, observation and discussion, observation and feedback on a specific topic, classroom management strategies). The activities rated slightly less important for student learning were related to working with specific groups of students (e.g., English language learners [ELLs] or students with special needs), working with families or with one's principal, and documenting work.

Overall, mentors rated most activities as having a greater impact on students' learning than did BTs. Although mentors generally rated highest the same activities that BTs rated highest, the greatest rating differences were for perceptions of the impact of support for knowledge of the content (mentors 4.5, BTs 3.9,); working with ELLs (mentors 4.4, BTs 3.9,); and pre-assessing students (mentors 4.3, BTs 3.8).

Figure 3. Mentoring Activities: Perceptions of Impact on Student Learning

Activity	BTs	Mentors
Assess and reflect on practice	4.4	4.7
Observation and discussion	4.4	4.6
Strategies for differentiating instruction	4.4	4.5
Classroom management strategies	4.3	4.6
Emotional support	4.3	4.3
Observation and feedback on a specific topic/issue	4.3	4.6
Strategies for using professional teaching standards	4.3	4.4
Developing a repertoire of teaching strategies	4.2	4.6
Reflection on professional goals	4.2	4.0
Resources and materials	4.2	4.4
Strategies for analyzing students' work and growth	4.2	4.3
Strategies for managing job-related stress	4.2	4.2
Support for meeting district goals and requirements	4.2	4.1
Customizing lesson plans to meet student needs	4.1	4.3
Strategies for collaboration with other teachers	4.1	4.4
Strategies to understand and deliver the curriculum	4.1	4.3
Discussing issues of equity	4.0	4.0
Strategies for working with families	4.0	4.2
Strategies to use student assessment data	4.0	4.4
Working with students with Special Needs	4.0	4.3
Documenting work (e.g. CALs)	3.9	4.0
Strategies for communication with the principal	3.9	3.9
Supports for knowledge of the content area(s)	3.9	4.5
Working with English Language Learners	3.9	4.4
Pre-assessing students	3.8	4.3
Strategies to get additional support from the principal	3.8	4.0

Scale: 1 Not at all — 2 — 3 — 4 — 5 A great deal

Source: 2011 ECS

How is mentoring practice related to student growth?

Some of the most important evidence of the impact of the AISD Reach mentoring program was based on the student performance of teachers served by the program; if the program is effective, teachers who received high-quality, targeted support could be expected to see improvement in student outcomes, particularly for students of teachers who were mentored for multiple years. Figure 4 shows the performance of the students of AISD Reach BTs as measured by growth on the Texas Assessment of Knowledge and Skills (TAKS) reading and mathematics (math) tests in 2009, 2010, and 2011. Each line represents a cohort of teachers (e.g., the 2008-09 cohort is all teachers who began working with a mentor in 2008-09, and each point on the line represents the net growth

score of their students on TAKS that year[1]). With the exception of secondary reading performance, each year, the students of teachers served by the program improved over time. But what mentoring activities in particular were most strongly associated with student growth in the BTs' classrooms? And did this align with what teachers believed to be the most beneficial activities? A summary of the average time spent engaged in these eight activities (computed time log based on crosswalk), average impact ratings for both BTs and mentors (ECS), and correlations between time spent engaging in the activity and 2011 TAKS growth can be found in Table 1.

Figure 4. Growth of Students of Novice Teachers by Cohort
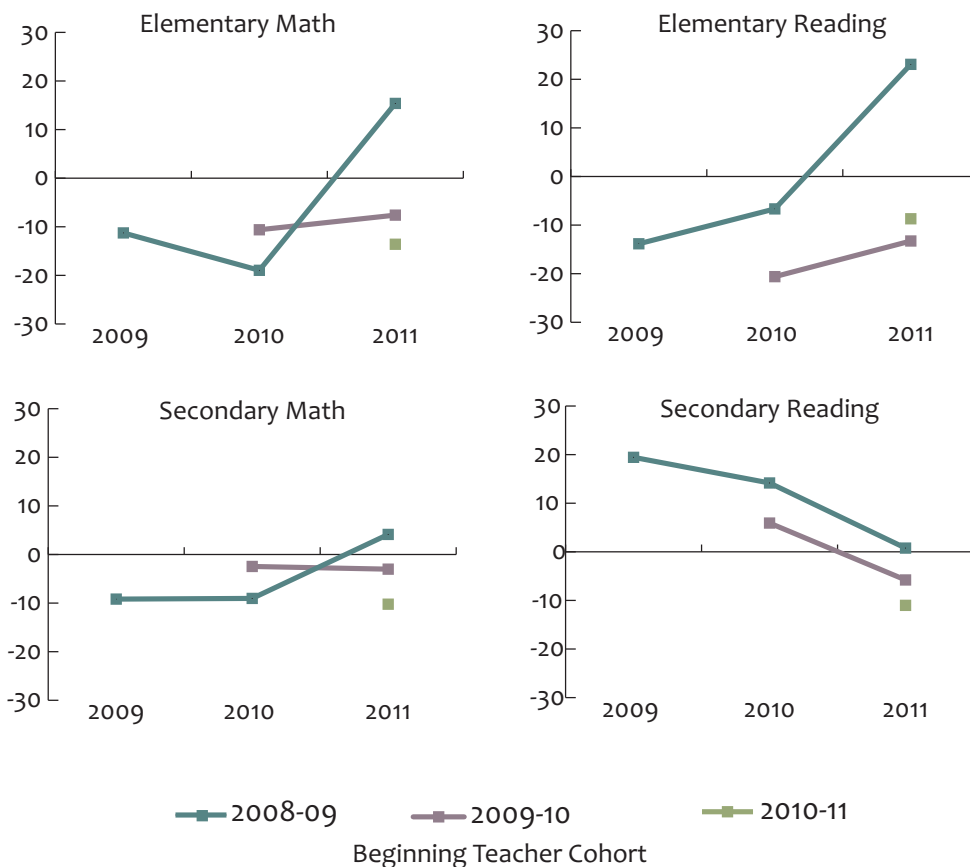
Source: District TAKS records

In general, mentors rated higher activities that had a stronger correlation with TAKS than did BTs; however, many of the correlations were *negative*, suggesting that more time spent on the activity was associated with less student growth on TAKS in that subject in 2011. Taken together, this suggests that at least in some cases, mentors devoted most of their time with struggling teachers (i.e., teachers whose students performed poorly on TAKS) to activities they perceived as having the most impact on students' learning.

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[1]For more information on net growth computation, please contact the authors.

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Table 1. Activity Time, Impact Rating, and Correlation with TAKS Growth, by School Level

	Elementary				Secondary			
	Avg hrs spent	Avg student learning impact rating		Correlation btw hrs and TAKS growth	Avg hrs spent	Avg student learning impact rating		Correlation btw hrs and TAKS growth
		BT	Mentor	Rdg	Math		BT	Mentor	Rdg	Math
Classroom management	74.3	4.4	4.8	-.18	-.49	23.9	4.3	4.5	.35	-.11
Customizing lesson plans	27.4	4.1	4.5	.01	-.14	16.1	4.1	4.2	.09	-.07
Developing a repertoire of teaching strategies	130.5	4.4	4.9	-.39	-.64	75.6	4.2	4.4	.42	-.17
Emotional support	8.7	4.4	4.9	-.37	.04	10.0	4.4	4.0	.10	.09
Observes my teaching and discusses it w/me	23.3	4.5	4.9	-.26	-.25	49.1	4.3	4.5	.17	-.16
Reflect on professional goals (i.e., ILP)	6.8	4.2	4.4	-.25	.22	15.9	4.2	4.1	-.46	.07
Supports my knowledge of the content	52.8	4.3	4.9	.04	.04	78.7	3.7	4.3	-.43	-.06
Work collaboratively with other teachers	13.2	4.3	4.9	-.23	-.23	15.7	4.1	4.2	.25	.14

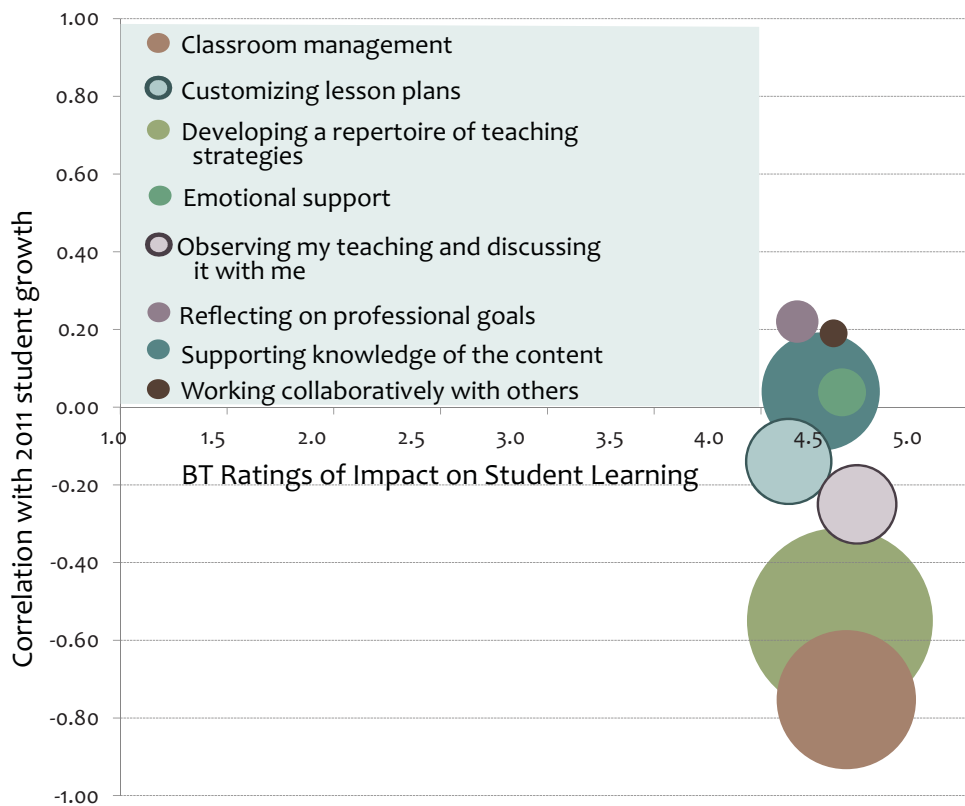Source: AISD Reach Mentor Time Log, 2011 ECS, and district 2011 TAKS records

How do ratings of impact align with the amount of time spent pursuing each type of activity, and how do both relate to student growth?

To answer this question, it was necessary to produce an estimate of the amount of time mentors spent working with their teachers on the areas measured on the impact survey. The mentor log database was designed to capture the general categories of support (e.g., professional development, planning), in which mentors and their teachers engage. Although informative, the database did not capture many of the nuances of mentors' support. For this reason, there was not a direct 1:1 correspondence between the data captured in the log (i.e., time spent) and the ratings of impact given by BTs and mentors on the ECS. Therefore, to estimate the amount of time spent engaged in the activities on the ECS, it was necessary to align the mentor time log categories with the impact items and compute an approximation of the time spent engaged in each activity (see Appendix A). A total of eight activities were identified as having corresponding ECS impact ratings: *classroom management, customizing lesson plans, developing a repertoire of teaching strategies, emotional support, observing teaching and discussing it, reflecting on professional goals (i.e., ILP), supporting knowledge of the content,* and *working collaboratively with other teachers.* Figures 5 through 8 display the relationships among BT ratings of impact (x-axis), correlation with TAKS growth in that subject and grade level (y-axis), and amount of time spent working on that activity (bubble size) for elementary and secondary math and reading TAKS growth. Correlations can range from –1 to 1, and positive correlations indicate a positive relationship between the amount of time spent working in

an area and the TAKS growth of students for that grade level and subject. Negative correlations indicate an inverse relationship between amount of time spent on that activity and students' growth.

Results differed by subject and by level, and provide interesting insight into the various ways in which mentors serve teachers who were struggling to different degrees. In elementary math (Figure 5), for example, a strong negative relationship was found between the amount of time spent working on classroom management and developing a repertoire of teaching strategies, and student growth. Results were similar for elementary reading and classroom management, and building a repertoire of teaching strategies; however, the correlations were not as strong (Figure 6).

Figure 5. Mentoring Activities and Elementary Math Growth

Source: AISD TAKS records, 2011 ECS , and AISD Reach Mentor Time Log

Figure 6. Mentoring Activities and Elementary Reading Growth
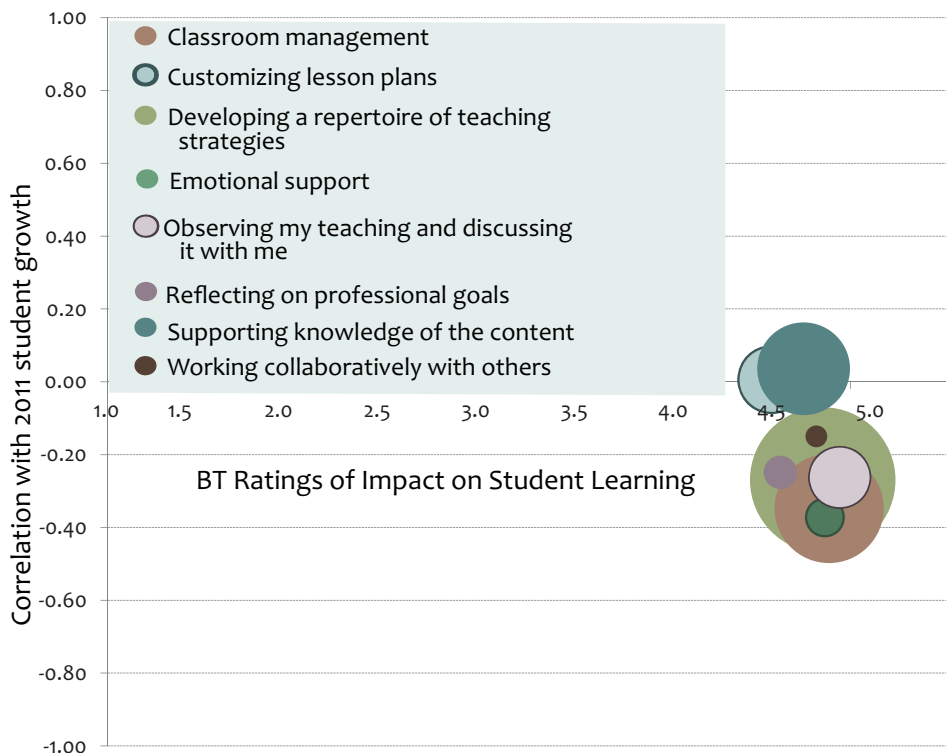
Source: AISD TAKS records, 2011 ECS , and AISD Reach Mentor Time Log

Results for secondary teachers were different from those for elementary teachers. In secondary reading (Figure 7), the strongest correlations were between growth and support for content knowledge (one of the largest bubbles) and reflecting on professional goals. Given that secondary teachers generally teach in a single subject, it makes sense that they would have a greater need to acquire a greater depth of knowledge in their subject area and that it might be necessary to spend a significant amount of time in this area with struggling teachers in particular. For secondary math (Figure 8), correlations between activity time and student growth were small. An interesting positive correlation was found between growth and time spent collaborating with other teachers. This variable was computed only for teachers in schools where mentors led professional learning communities (PLCs) with their BTs. This could be a potentially important practice and requires further investigation.

Figure 7. Mentoring Activities and Secondary Reading Growth
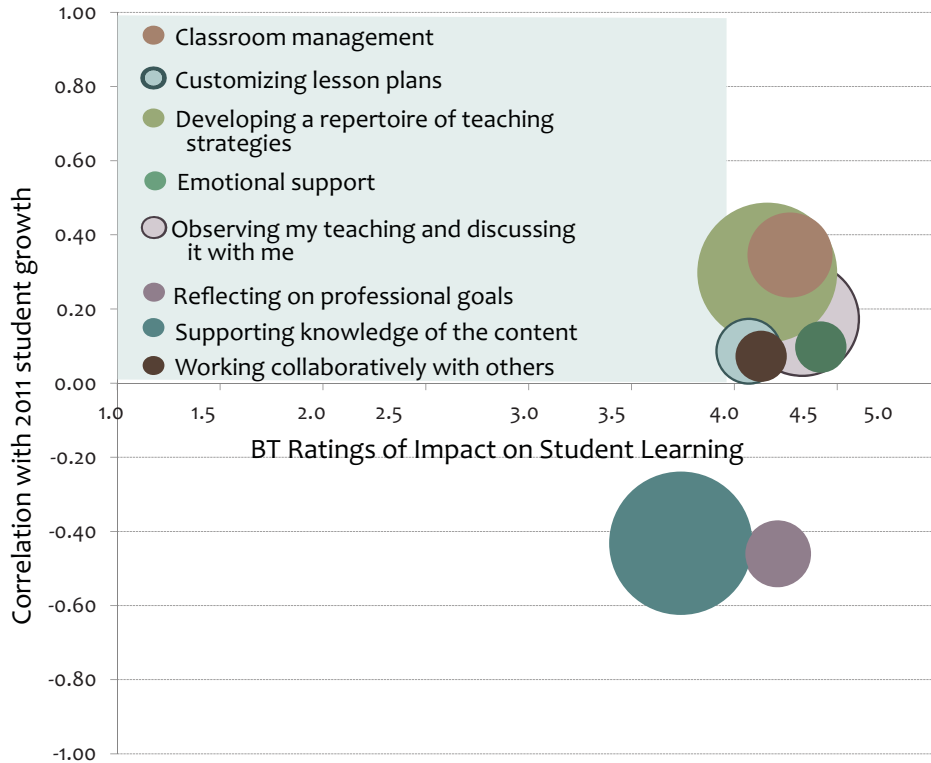
Source: AISD TAKS records, 2011 ECS , and AISD Reach Mentor Time Log

Figure 8. Mentoring Activities and Secondary Math Growth

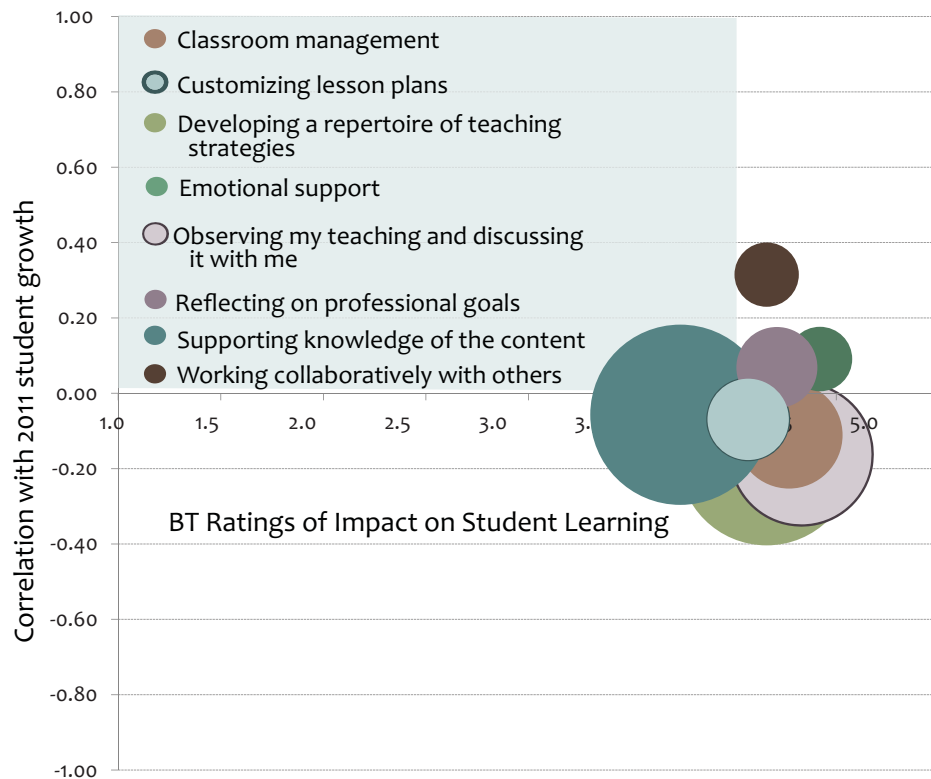Source: AISD TAKS records, 2011 ECS , and AISD Reach Mentor Time Log

What is striking about these results is that although some inverse relationships were observed between TAKS growth and time spent on mentoring activities, few positive relationship were observed between TAKS growth and time spent on mentoring activities. In other words, thus far it is not possible to identify "high-value" activities that were viewed as highly impactful and for which spending more time in that area was associated positively with TAKS growth.

Some of this may be an artifact of the data set, a "ceiling effect" wherein estimates of these relationship were constrained by the limited range in the data. In this case, the restricted range in TAKS growth may present an estimation challenge. In future studies, we will be able to examine these relationships longitudinally to determine whether the amount of time spent on these activities produces changes in student growth over time, rather than only looking at differences. Also, we were only able to confidently use examine eight of the 26 mentoring activities due to the limitations of our crosswalk. Although these eight activities are critical to mentoring practice, it is likely others contribute equally, if not more, to the effectiveness of beginning teachers.

How does variation in mentoring practice influence BT retention?

Focus group and interview participants were asked to reflect on the influence that their mentor had on their decision to stay at their campus, in the teaching profession, or both. Nearly all BTs stated their mentors influenced their decision to return the following year, mostly by "helping [me] survive the first couple of years." Some expressed appreciation for the confidence their mentors had instilled in them, and others noted the ways their mentors had helped them to view the teaching profession as a career choice. While explaining how her mentor influenced her decision to stay, one BT described the long-term perspective she gained from her mentor, "I see that she has been a teacher for years and years and still enjoys it so much and still takes such joy in it and has had terrible years and great years and a lot of experiences in between. So, I would say yes she has been amazing and anybody who gets her as a mentor is very fortunate." Another BT who was selected for interviewing because of her very positive ratings of her mentor said,

> Yeah, absolutely. There's been times where I'm like—well especially in my first year I had a very tough classroom the first year and she just kept encouraging me that it would get better, it would get better. And she was right, it did getter in the year. I learned from her and just my colleagues around me as well how to be a better teacher and how to make my classroom management more efficient and my second year was much better than my first year and my third year I couldn't have asked for a better year. So, she definitely has influenced my decision to stay.

Most BTs perceived that their mentor had a positive influence on their decision to remain on their campus, in the teaching profession, or both. To understand how mentors supported teach-

ers who were retained and those who left their campuses, we examined the amount of time mentors spent with mentees in each of the critical domains. It is important to note that two circumstantial factors affected retention computations for 2010-11 teachers. First, the district declared a Reduction In Force (RIF) in January 2011 and approximately 1,100 teachers were affected districtwide. Fortunately, many of those teachers subsequently found positions on different campuses (or even were able to return to their own) before the start of the school year, but this involuntary leave scenario influenced the computation of retention for the year. Teachers on the official RIF list were excluded from these analyses. Second, two AISD Reach schools (one middle school and one elementary school) no longer served 6th-grade students in 2011-12, therefore all of their 6th-grade teachers were involuntarily transferred to other schools. Those teachers also were excluded from the retention analyses.

Results revealed significant differences in the time spent with each group, and indicated different patterns at the elementary and secondary levels. Elementary teachers who were retained received significantly more mentoring support than did those who left their campuses (Figure 9). For example, elementary teachers who remained on campus received an average of 76 hours of support on classroom management and 100 hours of assistance with understanding the curriculum, while those who left received only 35 hours on classroom management and 40 hours on understanding the curriculum, on average. The total amount of individualized mentoring support differed significantly at the elementary level, (122 hours for leavers and 219 hours for stayers, respectively, on average).

Secondary mentoring, however, differed in the opposite direction. For example, mentors provided an average of 91 hours of support to leavers on differentiating instruction, and an average of 65 hours provided to those who remained. Although the total amount of individualized mentoring did not differ significantly between secondary teachers who left and secondary teachers who remained, the amount of time spent in certain areas was significantly greater for those who left than for those who remained on their campuses.

Figure 9. Average Amount of Time Spent on Each Activity by Retention Status

★Indicates a statistically meaningful difference
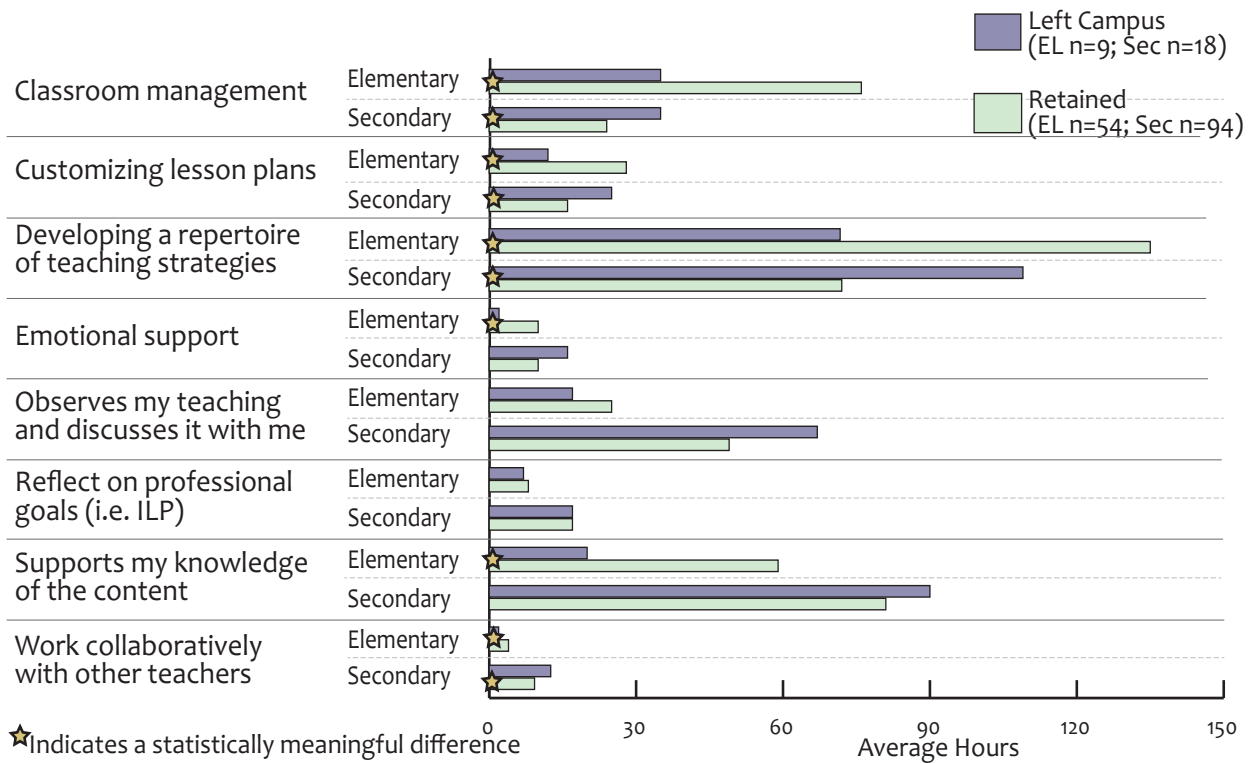
Source: AISD Reach Mentor Time Log and AISD Human Resources Records

To better understand these unexpected differences in time spent with stayers and leavers, particularly the differences between elementary and secondary levels, we consulted with the mentoring program's senior staff. An examination of the elementary leavers yielded some interesting insight; eight of nine elementary leavers planned early to leave at the end of the year, primarily for personal reasons (e.g., parenting leave, moving out of state, etc.). Therefore, the senior staff concluded the mentors may have extended less assistance to those teachers, while still maintaining the minimum necessary support for the good of the teacher and his or her students. Teachers who are not planning to return to the profession right away after having a child, for example, may not require the same level of support with lesson planning or developing a repertoire of teaching strategies as would teachers who are planning to return right away.

An examination of the secondary leavers, however, showed that none of the secondary leavers had early plans to leave at the end of the school year. The explanation for the differential support offered by the mentoring program's senior staff is that the teachers who struggled most may have required the most support over the course of the year. It is important to note, too, that although we have removed all "officially" RIFed teachers from these analyses, many staffing changes occurred after that period and may have disproportionately affected new teachers. We will continue to investigate the campus-level factors and changes that may have influenced retention beyond the RIF.

Conclusion

A successful mentoring relationship is extremely complex and requires commitment on the part of both the BT and the mentor. As one mentor said in her interview,

> [There are three] essential components [to a establishing a good mentor/mentee relationship]: They have to feel with sincerity that you are really there to help them become better and that it's not your own agenda and that there's not some secret agenda or anything like that that you want to bear to focus on the things that they want to focus on in order to improve. And so that sincerity has to be there. And then they also need to believe and they need to feel that you're reliable. They need to know that you're there when things were going to be tough and that you're going to provide the support they need in those times and then finally competence. And competence not only as a teacher, and that you need to have a repertoire strategy, but a teacher, that's also competent as a mentor….And so with those three things sort of in place, that really builds the strong foundation and where practice changes.

This project focused on studying mentoring practice to better understand the ways in which mentoring leads to positive outcomes for BTs and their students. One strength of this research was that by combining qualitative and quantitative data we were able to examine mentoring practice from a variety of perspectives.

Our aim was to identify the most "high-value" mentoring activities by analyzing connections among time spent, perceptions of impact on student learning, and student growth and BT retention. In the end, due to limitations in the data, we only were able to look at eight mentoring activities, and although we were able to uncover some important differences in the ways in which different teachers receive support, and the relationship among time spent engaging in these activities and remaining on the campus, we were not able to provide a definitive answer to the question: which activities matter most. The data do seem to suggest that classroom observation and feedback, and the activities that are directly related to diagnosing and improving classroom behaviors (e.g, work on classroom management), are critical to BT's experience of feeling supported, to their feeling that they are having an impact on students, and to BT's retention. Although the relationship between the amount of time spent in these areas and TAKS did not support the conclusion that they also improved student learning, future data may yet reveal that relationship. Several limitations to the present data help support the notion that there is more to learn.

The most notable limitation of this research was the lack of direct correspondence between mentoring activities that were rated for impact and the mentors' time log database categories. The complex crosswalk (Figure B.1) necessary to compute estimates of the time spent on each activity is an obvious indication of the lack of precision in measurement. Unfortunately, the database categories remain fixed and at present no other source for information exists to indicate how time is spent. In the future it will be possible to ask survey questions about the frequency of participation in activities, but asking BTs to reflect on how often they discussed a particular topic or received a particular kind of support retrospectively may not yield more accurate information. However, there is additional information exists within the database (e.g., mentor notes about what they worked on during meetings) that may prove useful. (It remains to be seen how consistently they make use of that field, however.)

A second important limitation is in the 2011 ECS data. The response rate for that survey typically ranges from 60% to 75% for teachers. This year, the response was lower than usual so in spite of the fact that the impact items were sent to all BTs, not all responded. The student growth analyses were limited, then, to teachers who have (a) response to the impact items, and (b) taught math and/or reading in grades 4 through 11 only. We were limited by the number of cases with all available data.

Third, the focus groups were informative and interesting but did not provide us with as much insight as we had hoped into mentoring practice. BTs were very likely to focus their comments on how grateful they were to have a mentor, or to focus on their own experience as a new teacher than to reflect in detail on the activities in which they engaged. Mentors, in contrast, were able to speak at length about the specific tools they used and why they felt those tools were useful or not. This highlighted an interesting disconnect between what activities that mentors chose, and what they communicated to their BTs about the purpose of those activities. At the 2011 Fall National Teaching Induction Network meeting, one participant referred to "mentee amnesia," the tendency for mentees to forget all the things their mentor has done with them over the course of a year. To the extent that mentors can provide a rationale and context for their guidance (e.g., "Okay, this tool is called the XX and is a really a good way for us to learn more about…"), we can expect better and more accurate reflections on the effectiveness of mentoring practices. Along with that, although we thought our focus group and interview questions were direct and specific with respect to tools and activities, we might be able to adapt and improve upon those questions. It is our hope that subsequent conversations with BTs might be more valuable given what we have learned through this process.

FUTURE RESEARCH

We would like to pursue several questions in future research based on what we learned through this project and based on questions that have come up as a result of our analyses. First, we would like to know more about the time spent on "indirect" mentoring activities. As indicated in Figure 2, mentors spent roughly 1/3 of their time on activities that were only indirectly related to their BTs. What kind of impact does this have on BT experiences or on student learning? Are there structural/system level factors contributing to the amount of time spent on this indirect mentoring activities? If so, should/can changes be made to reduce the amount of time spent this way?

Second, the differences that we uncovered based on retention status, both within and between school level, warrant further investigation. It would be interesting to circle back and speak with mentors, perhaps in a focus group, about the results and talk through the implications with them. The elementary results in particular are most interesting, and lead to questions like "Is it acceptable that BTs who are leaving get less support?" and "What are the minimum support requirements to ensure that teachers and students have the best year possible?"

Third, there was some issues raised in the course of analyzing our data that were beyond the scope of this project. For example, we found some very interesting differences in emphasis between very positive BT-mentor dyads (defined by mentor appraisal ratings) and less positive dyads. We documented some very specific advice from mentors and BTs about strategies for building and maintaining relationships, and there were some clear examples of mentors who made strategic choices that they believed were valuable and important, and yet their BTs identified the same behaviors as distracting or unhelpful or frustrating. This warrants additional investigation.

Fourth, perhaps the most pressing issue is the elusive "high-value" mentoring activities. We are in the process of identifying high-performing BTs and we hope to study them in depth over the coming year and perhaps write several case studies about their work to better inform our understanding of the mentoring process. Also, we hope to continue to work on better ways to capture the time spent on mentoring activities. We would like to learn from those who benefitted most from this program.

Finally, this project was designed to help guide AISD REACH administrators and program staff as they expand this program, and to support NTC's work related to program impact. It is our hope that in sharing our findings we can assist the Center in its work supporting teacher induction impact measurement and monitoring. We are extremely grateful to NTC and the MetLife Foundation to have had the opportunity to spend more time with these BTs and mentors, and their data.

Appendix A. Description of Data Sources

Employee Coordinated Survey (ECS). This survey is a program evaluation tool that is administered in the Spring semester. The ECS includes a wide variety of program related items, including those designed to measure the effectiveness of the AISD Reach mentoring program. In 2011 an additional subset of items was included for this project. Based on the NTC induction surveys, the items ask mentors and BTs to reflect on and rate the impact of various activities on student learning and teacher practice. Although this survey is distributed to all teachers served by the program, response rates in 2011 ranged from 50% to 60%, therefore some caution is warranted when interpreting results based on these data.

Mentor Time Log. All AISD Reach mentors are required to log their work hours and to code each discrete event into categories based on the primary focus/goal of the event. Mentors indicate with whom they worked, for how long, in what category, and any notes that they have about what happened during the meeting to add contextual information to the entry. The mentor coordinator periodically reviews the time logs to assess mentor progress, compare the use of time across mentors and across schools, and to inform and guide mentors in their practice.

BT Ratings of Mentor Effectiveness/BT Appraisal Results. BTs rate the effectiveness of their mentor annual using an instrument developed within the program for this purpose. Mentors who earn a favorable rating earn a stipend at the end of the year. The BT Appraisal results, also annual, are based on the state instrument (i.e., Professional Development and Appraisal System (PDAS)) as documented by the campus administrator.

Human Resources Database. Using several data sources within the district data system, and several maintained by DRE, basic demographic information about BTs and their annual retention status were joined (and/or computed).

Focus groups/Interviews. All BTs and mentors served by the program were invited to participate in focus groups or interviews about the program. Incentives in the form of gift cards were offered to improve participation in the focus groups, although due in part to conflicts around other events (including some spring test administrations), participation in the focus groups varied from campus to campus and even across groups within the same campus. In total approximately 75 mentors and BTs participated. Focus groups included BT program participants at all AISD Reach schools and addressed the following questions: *What is the most valuable thing that you learned from your mentor? What activities/tools did you find to be most helpful? Were there any activities/tools that were less helpful/not helpful at all? Where there any activities in which your colleagues engaged with their men-*
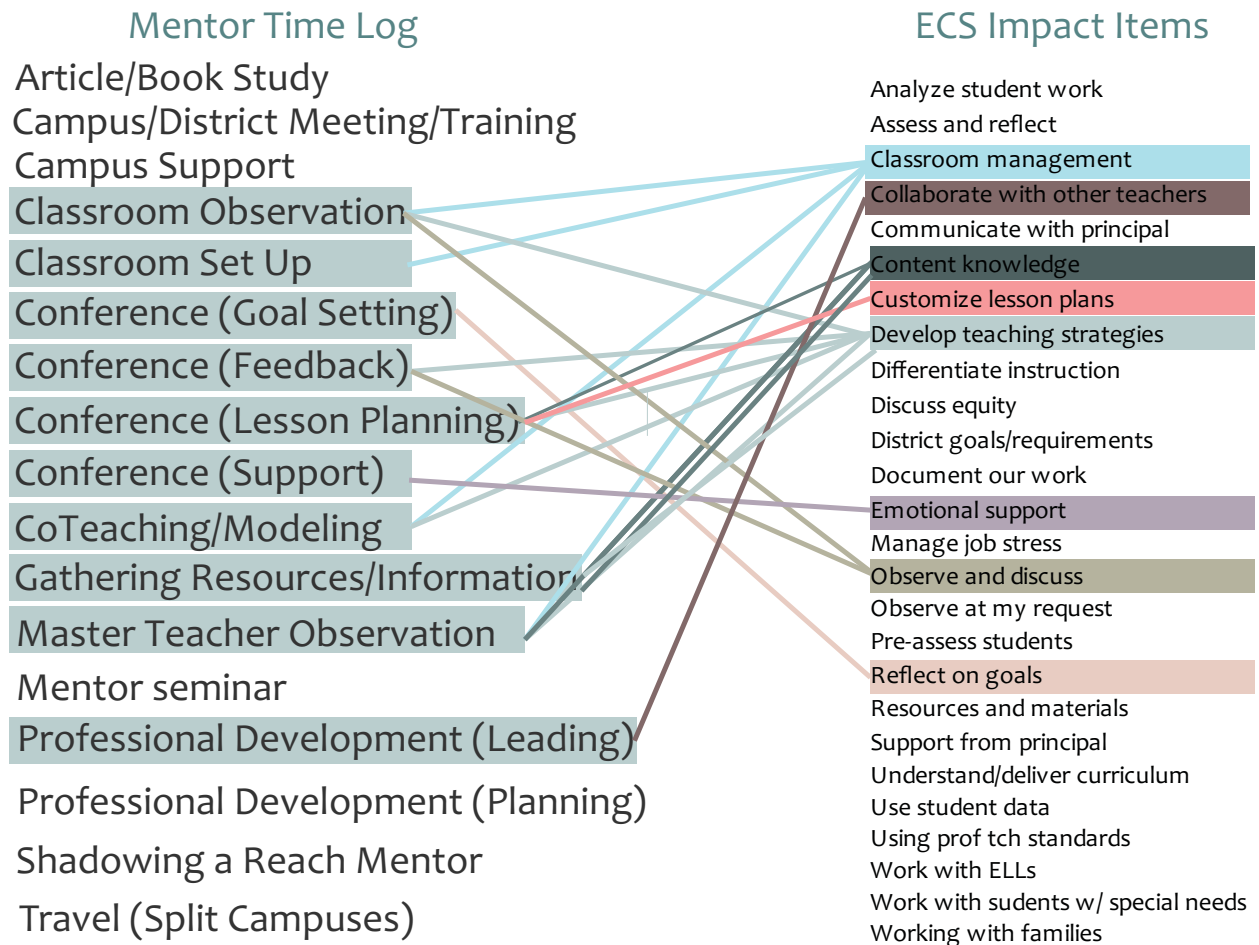
tors that you regret not having done with yours? What advice do you have for establishing a positive mentoring relationship? Has working with your mentor influenced your decision to remain on your campus and/or in the teaching profession? Participants had been in program for 1 to 3 years and all were in their first 3 years of teaching. A separate focus group for mentors also was conducted with all mentors in their 3rd year of practice. In-depth interviews also were conducted with four mentors and four novice teachers, chosen because the BT had either had a very positive experience with their mentor (as assessed by the BT mentor rating system and vetted by the mentor coordinator) or a less than positive experience with their mentor. The interviews addressed the same basic questions as the focus group, but the transcripts were analyzed with an eye toward differentiating between responses given by those BTs with more positive experiences versus those with less positive experiences.

Appendix B. Time log and ECS item crosswalk

DRE staff met with the AISD Reach Mentor program coordinator and assistant director of the Professional Development department to determine the best ways in which to group the log data to approximate the impact item activities. Figure B.1 (on the following page) shows the results of the crosswalk. Ultimately, only eight of the 26 mentoring activities that were measured on the ECS had a clear corresponding category in the time log. After time log categories were flagged, a total was computed across the time log categories for each impact item. These totals were entered into various analyses.

Figure B.1 Crosswalk of Mentor Time Log Data and Corresponding ECS Item

Mentor Time Log

Article/Book Study
Campus/District Meeting/Training
Campus Support
Classroom Observation
Classroom Set Up
Conference (Goal Setting)
Conference (Feedback)
Conference (Lesson Planning)
Conference (Support)
CoTeaching/Modeling
Gathering Resources/Information
Master Teacher Observation
Mentor seminar
Professional Development (Leading)
Professional Development (Planning)
Shadowing a Reach Mentor
Travel (Split Campuses)

ECS Impact Items

Analyze student work
Assess and reflect
Classroom management
Collaborate with other teachers
Communicate with principal
Content knowledge
Customize lesson plans
Develop teaching strategies
Differentiate instruction
Discuss equity
District goals/requirements
Document our work
Emotional support
Manage job stress
Observe and discuss
Observe at my request
Pre-assess students
Reflect on goals
Resources and materials
Support from principal
Understand/deliver curriculum
Use student data
Using prof tch standards
Work with ELLs
Work with sudents w/ special needs
Working with families

Source: AISD Reach Mentor Time Log and 2011 ECS

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