Report on the Teacher Residency Program

A multi-method approach was employed to evaluate the teacher residents, incorporating surveys (administered to students and parents), student performance data (assessed with Star standardized tests), and behavioral measures of performance (i.e. classroom observations).

Tripod Data

The data presented below was collected using the Tripod Student Survey. The survey is administered to all of the students in a classroom and provides information on the classroom culture, namely the 7Cs, which include the following: Care (teacher attentiveness); Confer (teacher focuses on instructional goals); Captivate (teacher's ability to stimulate); Clarify (teacher provides clear explanations); Consolidate (teacher summarizes lessons); Challenge (teacher requires rigor and persistence); and Classroom Management (teacher strives for orderly, responsible behavior). A composite of the 7cs is also provided, which encompasses teacher performance across all domains.

Tripod provided the norms for composite scores at the elementary, upper elementary, and high school levels, which enabled a comparison of resident classrooms to other classrooms across the nation. Note that there were three resident teachers at the elementary level from the fall of 2017 to the spring of 2018 and four resident teachers from the fall of 2018 to the spring of 2019. The data presented below (see Figures 1 and 2) combines all of their classrooms. Weighted means were used to account for the difference in class sizes.

Figure 1. Composite Scores for all Elementary Resident Teachers (Hudson Falls and Cambridge School Districts) from Fall 2017 to Spring 2018.

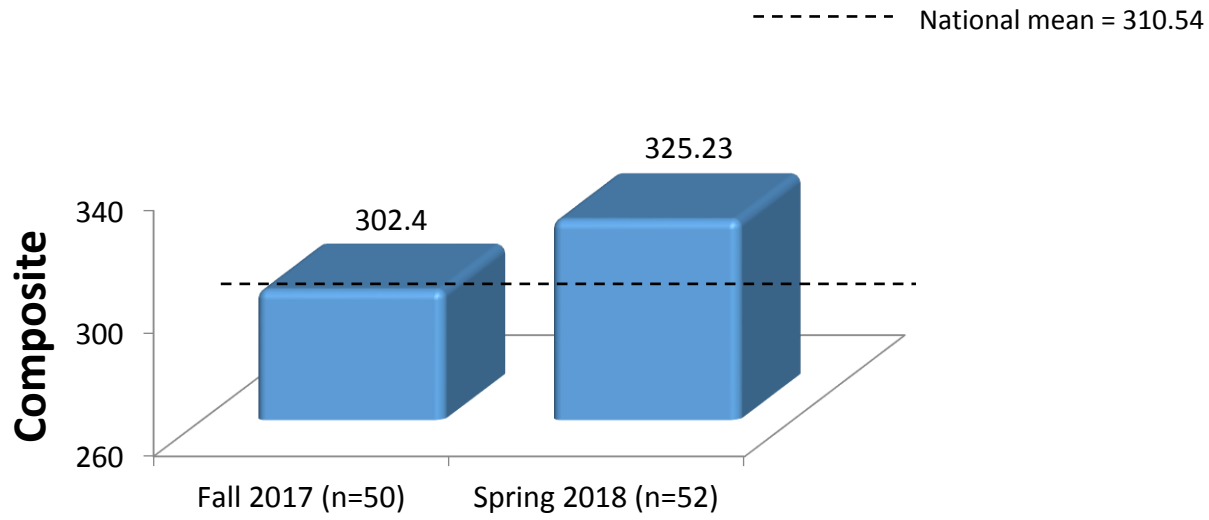
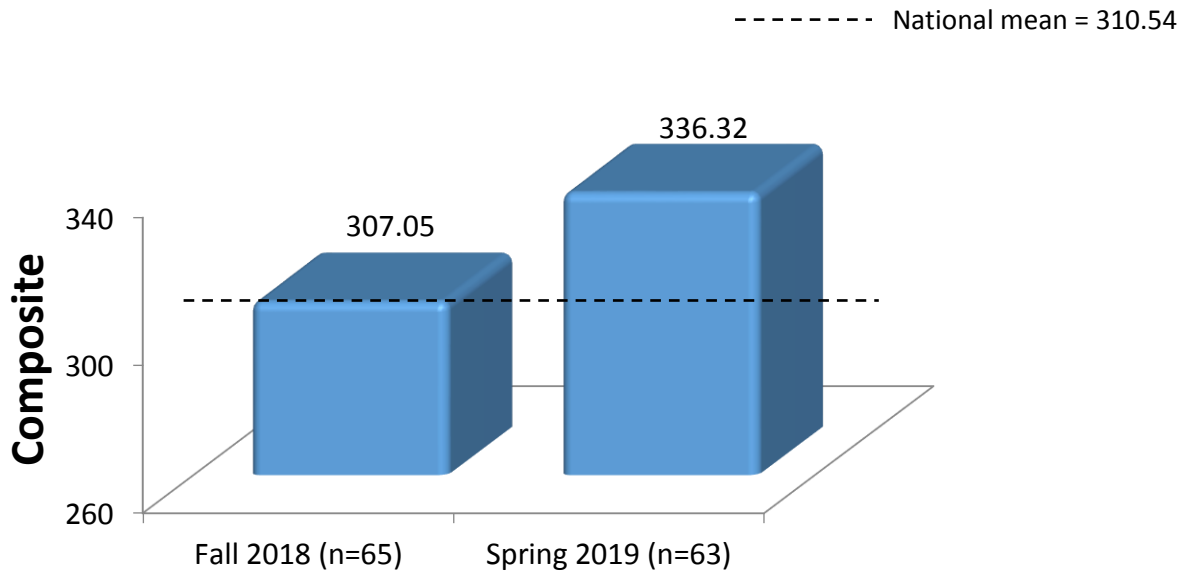


Figure 2. Composite Scores for all Elementary Resident Teachers (Hudson Falls and Cambridge School Districts) from Fall 2018 to Spring 2019.



A paired samples t-tests was conducted and showed a significant increase in composite scores from the fall of 2017 to the spring of 2018, t(49)=6.76, p=.001. There was likewise a significant increase in composite scores from the fall of 2018 to the spring of 2019, t(62)=-4.99, p=.001.

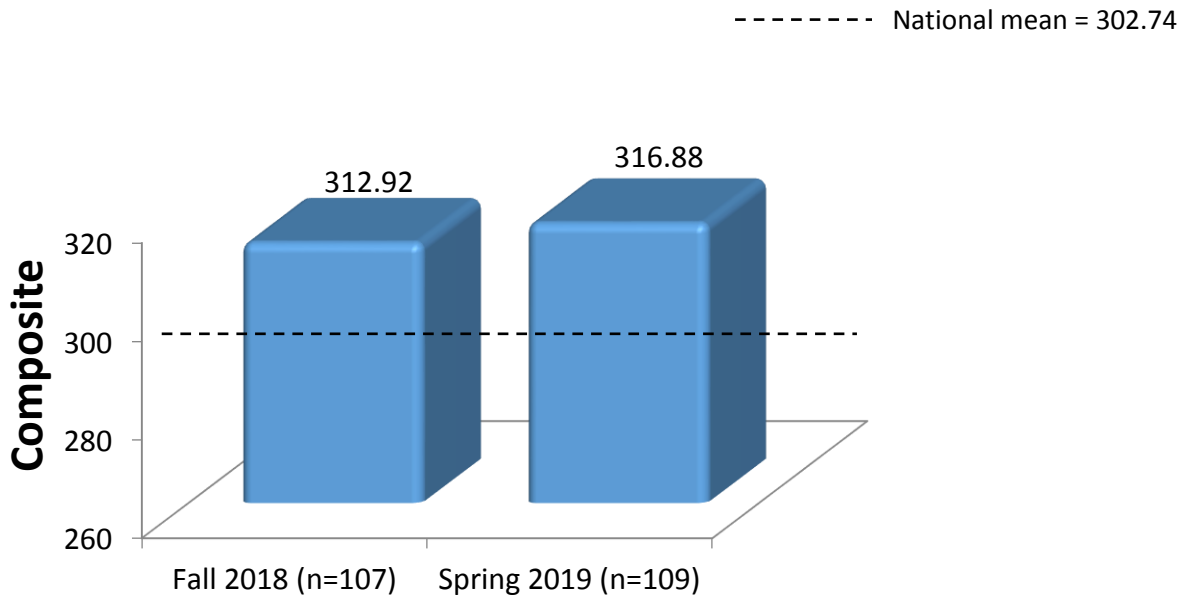
Resident teachers in the spring of 2018 had significantly higher composite scores (M=325.23) compared to the national average of 310.54 (SD=40.12; z=2.64, p=.004). A subsequent z-test was conducted and showed that resident teachers in the spring of 2019 had significantly higher composite scores (M=336.32) than the national average (z=5.10, p=.001). There were no differences for the fall of 2018 or the fall of 2019.

Conclusions: Overall, the data showed marked, and significant, improvement from the fall to the spring administrations of the Tripod survey. Also, by the spring of 2018 and 2019, the resident classrooms exhibited a highly positive classroom culture (as demonstrated by the composite scores on the 7Cs) in comparison to other classrooms nationwide.

Upper Elementary

Only one resident teacher was placed in an upper elementary classroom from the fall of 2018 to the spring of 2019. Mean composite scores for the class were 298 in the fall and 300 in the spring, which were below the national average of 302.74 (SD=31.60). There were three upper elementary resident teachers in the program from fall 2018 to spring 2019 with a total of 5 classes, across three school districts. Figure 3 shows mean composite scores across all of the resident teachers. As before, weighted means were used to account for differences in class size.

Figure 3. Composite Scores for all Upper Elementary Resident Teachers (Hudson Falls, Cambridge, and Beekmantown School Districts) from Fall 2018 to Spring 2019.



The mean composite score for the fall 2018 classes was 312.92 (SD=14.98), which proved to be significantly higher than the national average (z=3.33, p=.001). The mean composite score for the spring 2018 classes was 316.88 (SD=9.09), which was also significantly higher than the national average (z=4.67, p=.001). A paired samples t-test revealed significant growth from the fall to the spring administrations of the survey, t=-3.13(106), p=.002.

Conclusions: Resident teachers at the upper elementary level had significantly higher composite scores, indicating a more positive classroom culture, compared to the national average. They also showed distinct improvement in scores from the fall 2018 to spring 2019 administrations of the survey.

High School

There were five different resident teachers at the high school level from the fall of 2017 to the spring of 2019. The residents were spread across three school districts (Hudson Falls, Cambridge, and BOCES) and had multiple sections and multiple courses. For this reason, and due to the widespread variation in composite scores, each resident was treated separately in the analysis. Table 1 shows the mean composite scores for all resident teachers. The table also indicates when a resident scored significantly above or below the national mean of 304.42 (SD=36.00).

Table 1. Composite Scores across all Resident Teachers from Fall 2017 to Spring 2019.

Teacher	Fall 2017	Spring 2018	Fall 2018	Spring 2019
A	321.18*	321.27*		
B	308.90	303.36	304.47	314.06
C			313.62	302.33
D			291.67*	258.20*
E			344.00*	326.00

Note. National Average was 304.42. * indicates that the mean composite score was significantly different than the national average.

Of the 5 teachers, 2 were rated as significantly above the national average of 304.2. Composite scores for Teacher A were significantly above average in the fall of 2017 ($z=3.33$, $p=.001$) and spring of 2018 ($z=2.99$, $p=.003$). Teacher E scored significantly above average in the fall of 2018 ($z=3.97$, $p=.001$) and a good deal above average in the spring of 2019 but this last data point could not be statistically analyzed using a z-test as there were only 3 participants. In the fall of 2018, Teacher C showed a strong trend towards having a higher composite score than the national average ($z=1.85$, $p=.064$). Teacher B showed a slightly weaker trend in the spring of 2019 but still in a positive direction ($z=1.58$, $p=.114$). Teacher D showed significantly lower composite scores than the national average in both the fall of 2018 and spring of 2019.

General Conclusions

Across the elementary and upper elementary levels there was good evidence that the classrooms benefitted from having a resident teacher as classroom culture was rated to be higher than the national average. Of note was the significant improvement in the ability to foster a positive classroom culture from the fall to spring administrations. The high school resident teachers had more mixed results, although the majority were either at the national average or significantly above average, with only one resident being significantly below.

Performance on Standardized Tests

Scores on standardized assessments, namely the Star tests for Reading and Math, were available for students at the elementary and upper elementary levels for both the Hudson Falls and Cambridge school districts. Student growth in both Math and Reading could be examined for the resident teachers by use of scaled scores. A note on the figures below: Some teachers and schools administered the assessments at 3 time points in the school year (fall, winter, and spring) whereas others only had two time points (fall and spring). There were two resident teachers in grade 2. Data for Math was not provided for the class of the grade 6 resident.

For all teachers, paired sample t-tests were conducted to determine whether scores were significantly different from the fall to spring administrations for both Reading and Math. The class of Resident A showed a significant increase in Reading scores [t(17)=-7.06, p=.001)] as well as Math scores [t(17)=-5.31, p=.001); see Figures 4 and 5].

Figure 4. Student Scores (n=18) for Star Reading. Class of Resident A, Grade 1, 2017-2018.

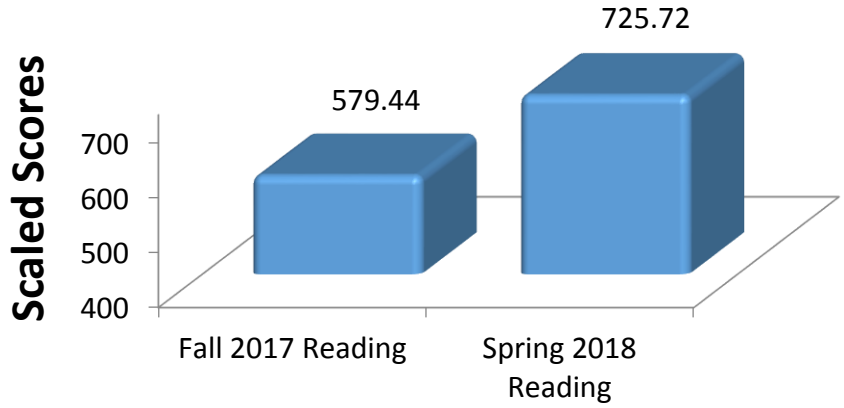
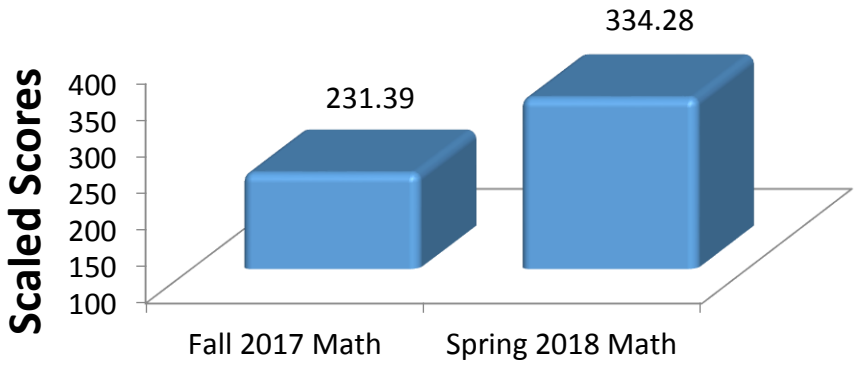
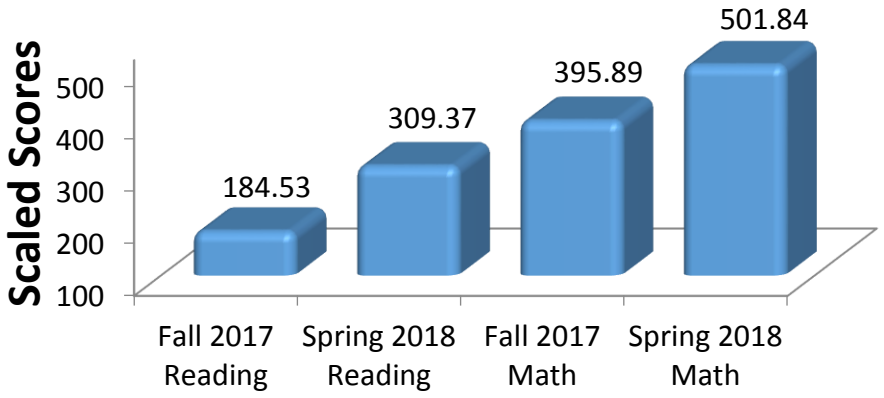


Figure 5. Student Scores (n=18) for Star Math. Class of Resident A, Grade 1, 2017-2018.



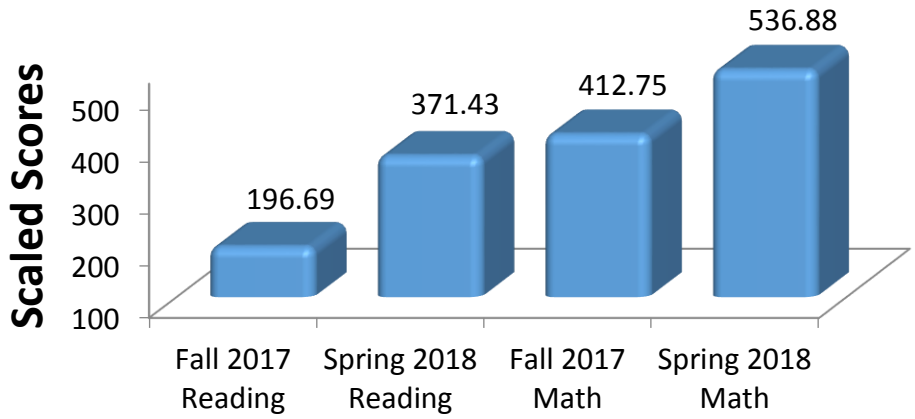
As shown in Figure 6, the class of Resident B showed significant improvement in Reading scores from the fall to spring semester [t(18)=-8.29, p=.001)], along with Math [t(18)=-8.17, p=.001].

Figure 6. Student Scores (n=19) for Star Reading and Math. Class of Resident B, Grade 2, 2017-2018.



Star data was available for Resident C in both 2017-2018 and 2018-2019 (see Figures 7 and 8). From 2017-2018 the class of Resident C showed significant improvement in Reading [t(15)=-9.23, p=.001] as well as Math [t(15)=-10.35, p=.001].

Figure 7. Student Scores (n=16) for Star Reading and Math. Class of Resident C, Grade 2, 2017-2018.



Three time points were available for Resident C in the 2018-2019 year. For both Reading and Math, the mid-point was an intermediate value between the fall and spring and demonstrated gradual improvement over time. Paired samples t-tests showed significant gains from the fall to spring in Reading [t(14)=-8.04, p=.001] and Math [t(14)=-7.39, p=.001].

Figure 8. Student Scores (n=15) for Star Reading. Class of Resident C, Grade 2, 2018-2019.

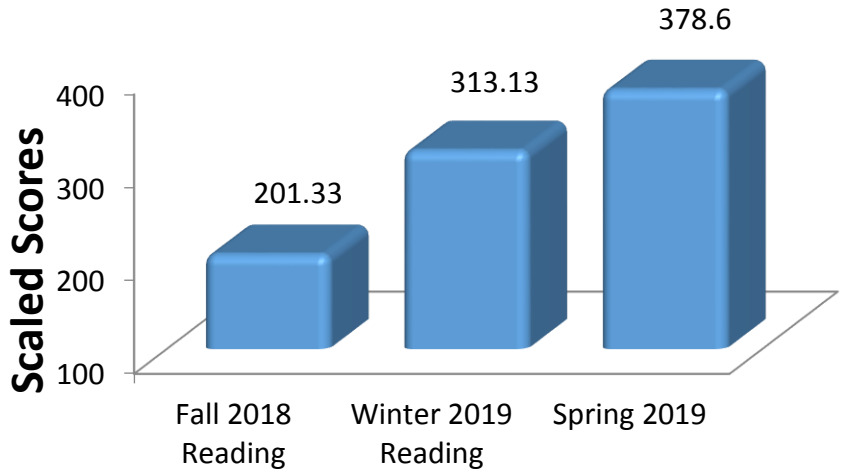
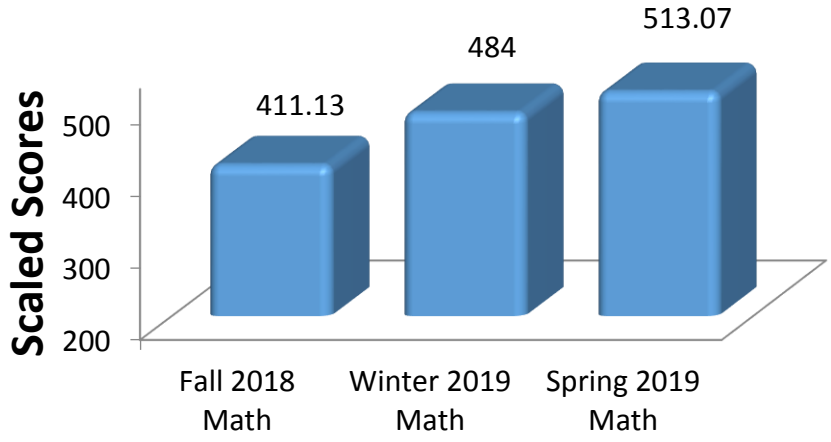
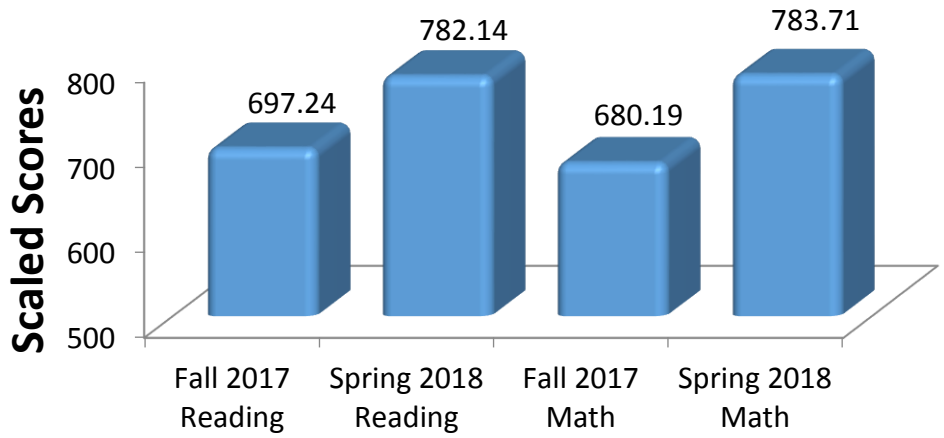


Figure 9. Student Scores (n=15) for Star Math. Class of Resident C, Grade 2, 2018-2019.



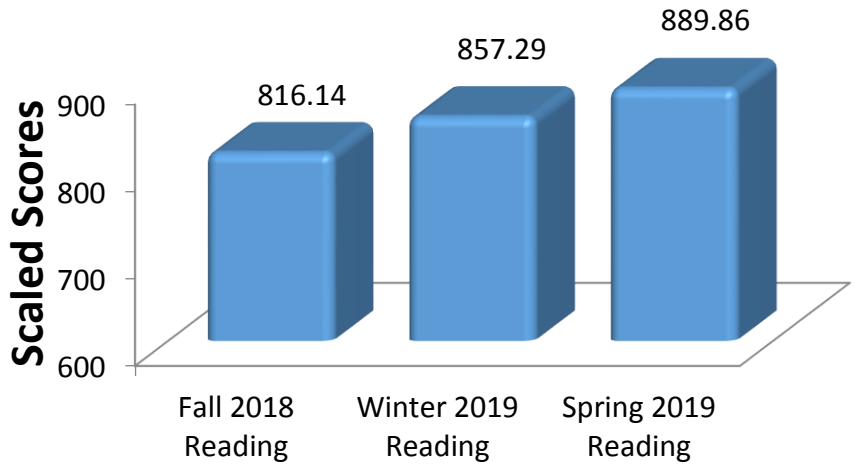
The grade 5 class of Resident D showed significant improvements in both Reading [t(20)=-3.13, p=.005] and Math [t(20)=-3.20, p=.005] from 2017-2018 (see Figure 10).

Figure 10. Student Scores (n=21) for Star Reading and Math. Class of Resident D, Grade 5, 2017-2018.



The sixth grade class of Resident E showed steady improvement in Reading from the fall to the winter to the spring. Significant gains were made in reading from the fall to spring administrations [t(20)=-2.34, p=.030]. Math scores were not provided for the class.

Figure 11. Student Scores (n=21) for Star Reading. Class of Resident E, Grade 6, 2018-2019.



Conclusion

Every resident classroom, for which Star data was available, showed significant and substantial improvements over time in both Reading and Math. This effect was consistent across different school districts and grade levels.

Observational Data

To evaluate teaching behavior, residents were videotaped in their instruction and were later rated on a number of dimensions taken from the Danielson rubric. The ratings were performed by building level leaders, all of whom had been trained on the rubric. Tables 2-5 show the frequency (and percentage) of resident teachers who were rated as Ineffective, Developing, Effective, or Highly Effective from the fall of 2017 to the Spring of 2019.

Table 2. Expert Observations of Resident Teachers (n=5) using the Danielson Rubric. Fall 2017.

Dimensions	Ineffective	Developing	Effective	Highly Effective	Missing or N/A
2A –Creates environment of respect and rapport.	0	0	**5 (100%)**	0	0
2B - Establishing a culture for learning	0	0	**5 (100%)**	0	0
2C – Managing classroom procedures	0	0	**5 (100%)**	0	0
2D – Managing student behavior	0	0	**4 (80%)**	1 (20%)	0
2E – Organizing physical space	0	1 (20%)	**4 (80%)**	0	0
3A – Communicating with students	0	1 (20%)	**4 (80%)**	0	0
3B – Using question and discussion techniques	0	2 (40%)	**3 (60%)**	0	0
3C – Engaging students in learning	0	1 (20%)	**4 (80%)**	0	0
3D – Using assessment in instruction	0	2 (40%)	**3 (60%)**	0	0
3E – Demonstrating flexibility and responsiveness	0	**1 (50%)**	**1 (50%)**	0	3

Note: Percentages in parentheses are the valid % (i.e. missing or N/A cases are not counted). The most frequently endorsed category is in bold.

Table 3. Expert Observations of Resident Teachers (n=4) using the Danielson Rubric. Spring 2018.

Dimensions	Ineffective	Developing	Effective	Highly Effective	Missing or N/A
2A –Creates environment of respect and rapport.	0	0	**3 (100%)**	0	1
2B - Establishing a culture for learning	0	**2 (66.7%)**	0	1 (33.3%)	1
2C – Managing classroom procedures	0	0	**3 (75%)**	1 (25.0%)	0
2D – Managing student behavior	0	0	**4 (100%)**	0	0
2E – Organizing physical space	0	0	**3 (100%)**	0	1
3A – Communicating with students	0	0	**3 (75%)**	1 (25%)	0
3B – Using question and discussion techniques	0	**2 (50%)**	**2 (50%)**	0	0
3C – Engaging students in learning	0	**2 (50%)**	0	**2 (50%)**	0
3D – Using assessment in instruction	0	1 (25%)	**3 (75%)**	0	0
3E – Demonstrating flexibility and responsiveness	0	0	**1 (100%)**	0	3

Note: Percentages in parentheses are the valid % (i.e. missing or N/A cases are not counted). The most frequently endorsed category is in bold.

Table 4. Expert Observations of Resident Teachers (n=11) using the Danielson Rubric. Fall 2018.

Dimensions	Ineffective	Developing	Effective	Highly Effective	Missing or N/A
2A –Creates environment of respect and rapport.	0	0	**11 (100%)**	0	0
2B - Establishing a culture for learning	0	4 (36.36%)	**5 (45.45%)**	2 (18.18%)	0
2C – Managing classroom procedures	0	0	**10 (100%)**	0	1
2D – Managing student behavior	0	1 (9.09%)	**8 (72.73%)**	2 (18.18%)	0
2E – Organizing physical space	0	0	**8 (80.00%)**	2 (20.00%)	1
3A – Communicating with students	0	0	**10 (90.91%)**	1 (9.09%)	0
3B – Using question and discussion techniques	1	**4 (36.36%)**	**4 (36.36%)**	2 (18.18%)	0
3C – Engaging students in learning	0	2 (18.18%)	**7 (63.64%)**	2 (18.18%)	0
3D – Using assessment in instruction	0	3 (30.00%)	**6 (60.00%)**	1 (10.00%)	1
3E – Demonstrating flexibility and responsiveness	0	0	**6 (100%)**	0	5

Note: Percentages in parentheses are the valid % (i.e. missing or N/A cases are not counted). The most frequently endorsed category is in bold.

Table 5. Expert Observations of Resident Teachers (n=5) using the Danielson Rubric. Spring 2019.

Dimensions	Ineffective	Developing	Effective	Highly Effective	Missing or N/A
2A –Creates environment of respect and rapport.	0	0	**5 (100%)**	0	0
2B - Establishing a culture for learning	0	1 (20%)	**3 (60%)**	1 (20%)	0
2C – Managing classroom procedures	0	0	**5 (100%)**	0	0
2D – Managing student behavior	0	0	**4 (80%)**	1 (20%)	0
2E – Organizing physical space	0	0	**4 (80%)**	0	1
3A – Communicating with students	0	0	2 (40%)	**3 (60%)**	0
3B – Using question and discussion techniques	0	**2 (40%)**	1 (20%)	**2 (40%)**	0
3C – Engaging students in learning	0	1 (20%)	**3 (60%)**	1 (20%)	0
3D – Using assessment in instruction	0	1 (20%)	**2 (40%)**	**2 (40%)**	0
3E – Demonstrating flexibility and responsiveness	0	0	**4 (100%)**	0	1

Note: Percentages in parentheses are the valid % (i.e. missing or N/A cases are not counted). The most frequently endorsed category is in bold.

Across the four semesters the vast majority of ratings were in the effective category. The data suggests that the resident teachers were performing at a relatively high level given their experience. At all four time points the areas in which residents had some difficulty were 2B - establishing a culture of learning, 3B - using question and discussion techniques, and 3D - using assessment in instruction. It could be that these areas are more challenging for beginning teachers. Otherwise, performance was quite good across the different dimensions, particularly in communicating with students.

Parental Feedback

Parents were surveyed about their attitudes towards the residency program. Frequency distributions are presented below.

Figure 12. **Fall 2017** - How much has teacher residency program benefited your child?

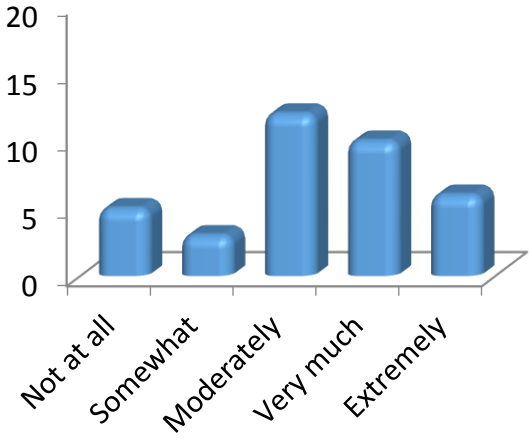


Figure 13. **Spring 2018** - How much has teacher residency program benefited your child?

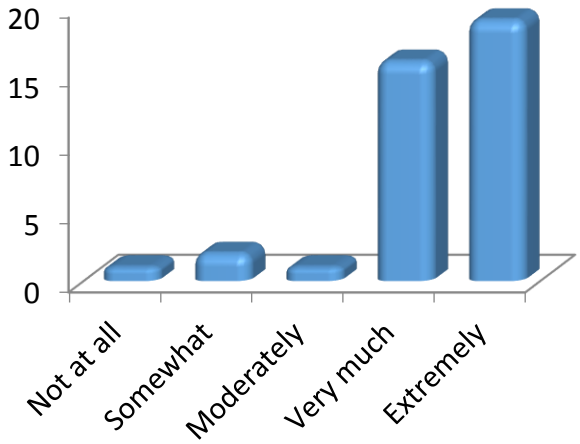


Figure 14. **Fall 2017** - Child has shown academic improvement as a result of teacher residency program

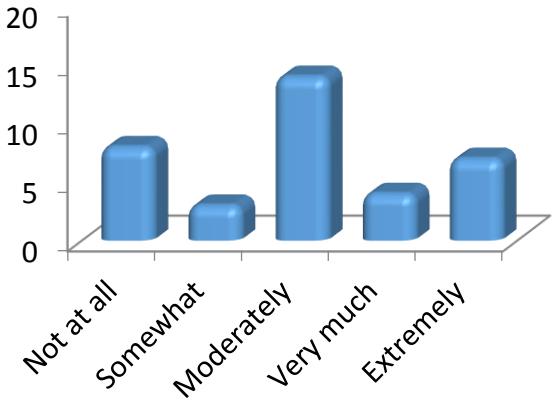


Figure 15. **Spring 2018** - Child has shown academic improvements as a result of teacher residency program.

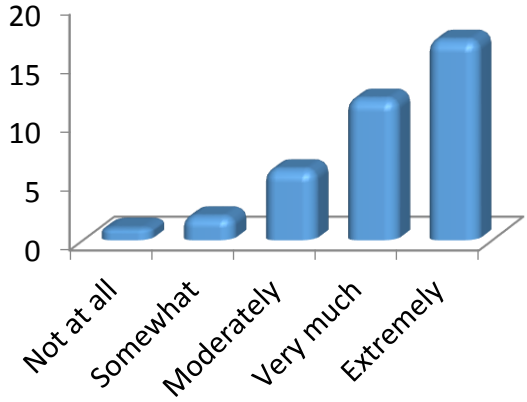


Figure 16. **Fall 2017** - Should teacher residency program be continued in the future?

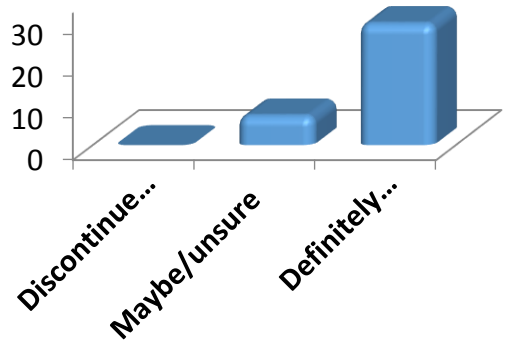
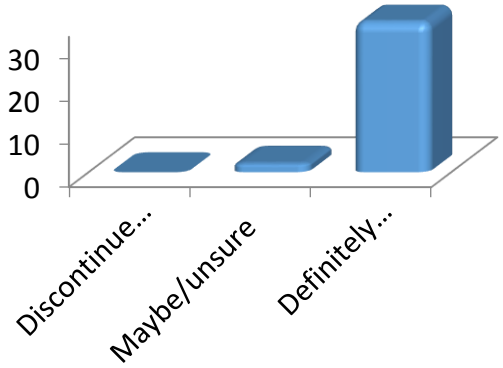


Figure 17. **Spring 2018 -** Should teacher residency program be continued in the future?



The parents endorsed the program for each question and did so in the fall and spring. Not surprisingly, they found the program to be a greater benefit, and found their child to show greater academic improvement, in the spring semester. It stands to reason that the benefits of the program (academic and otherwise) would be more apparent at the end of the school year. Appendix A contains some of the written feedback about the program, which tended to be very supportive.

General Conclusions

The teacher resident program demonstrated highly positive findings in regards to classroom culture, reading and math skills, and real-world teaching ability. Furthermore, by the spring of 2018, parental feedback about the program was decidedly enthusiastic. These findings came from several sources of data, using different methodologies, to obtain a relatively complete snapshot of the program. As the resident teacher program continues, future cohorts will be examined along the same lines. For now, the program seems to hold much promise.

Appendix A - Written Feedback from Parents

I think the program is a great opportunity for the resident teacher as well as the students.

The extra help in the classroom helps give students the one on one time they need.

I think the teacher residency program is a great program. Heather [name changed] has done good this year and I believe it was because of this program.

The program worked wonders! Enough where my son excelled enough to be pulled out from IEP.

My child loved having a resident teacher in the classroom.

I've been thrilled with Jenna's [name changed] growth in math and reading this year. My gratitude to the whole team.

As a teacher myself, I think it is invaluable to the candidate's preparation to be placed in a classroom for such an extended period of time. I wish my own preparation included this level of support and experience. As a parent I have been so grateful for the differentiation that has been afforded through the program. It has also provided so much consistency for the students throughout the year with their daily routines.

Data prepared and analyzed in this written summary by: Edward Sturman, Ph.D.