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Rochester Early Childhood Assessment Partnership 2019-2020 Twenty-Third Annual Report

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Children's Institute is a recognized leader in programs, research, and evaluations supporting children's social and emotional health. Our partner COMET Informatics offers a data support system that provides informed decision-making, organizational quality improvements, and improved outcomes for children and youth. Children's Institute (EIN 23-7102632) is a 501©(3) non-profit organization.

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Table of Contents

Acknowledgments

The Rochester Early Childhood Assessment Partnership (RECAP) is made possible through valuable contributions from the Rochester community including: Parents and families, early childhood education program staff, funders, policymakers, and volunteers. Children's Institute's work is enhanced by the early childhood education program representatives who join us to meet twice monthly, year-round, on the RECAP Assessment Team. The team works collaboratively to continuously improve RECAP to meet the needs of Rochester's children, families, and early childhood programs.

Financial support for RECAP is provided (in alphabetical order) by ESL Foundation, Generations Child Care Centers, Richard M. Guon Child Care Center at Monroe Community College, NY State Education Department, Rochester Area Community Foundation, Rochester's Child Fund of the Rochester Area Community Foundation, and the Rochester City School District.

Participating programs (in alphabetical order) include: Action for a Better Community's Early Education Division, Early Childhood Education Quality Council Centers, including: Asbury Day Care Center, Baden Street Centers, Community Child Care Center, Creative Beginnings Child Care, Friendship Children's Center, Ibero Early Childhood Services, Oregon Leopold Day Care Center, Richard M. Guon Child Care Center at Monroe Community College, Rochester Childfirst Network, St. Paul's Child Care Center, and Volunteers of America Children's Center, Florence S. Brown Pre-K School, Rochester City School District Montessori Academy, Rochester City School District Rochester Early Childhood Education Center, and all other Rochester City School District programs, YMCA Child Care Centers, and these independent child care centers: Caring and Sharing Child Care Center, The Community Place of Greater Rochester, Generations Child Care Centers, Hillside Children's Family Resource Centers, Kreative Kids Zone 3, Little Hearts Child Care, and Sunshine Village Child Care Lee Road.

We thank the teachers, adult family educators, paraprofessionals, family service coordinators, center directors, and school administrators who contribute their expertise and numerous hours of work to RECAP. Our gratitude is extended to thousands of parents and other caregivers who share essential feedback regarding prekindergarten programs and experiences with program staff. Families are an essential and highly valued component in the comprehensive RECAP model.

The RECAP Advisory Council, chaired by Nancy Kaplan, director of Rochester's Child, plays an instrumental role by providing feedback and insights regarding goals, needs of children and families, and effective use of RECAP data to inform early childhood policymaking in Rochester. We are grateful to the Advisory Council for its wisdom and for advising our team how best to enrich the relevance of RECAP in community-wide decision-making on behalf of children, families, and programs.

Executive Summary

It should be noted that COVID 19 pandemic shut down our community, state, nation and world starting in March of 2020 and students did not attend classes again for the remainder of the school year and no assessments of children or programs occurred past this date. However, student contacts by teachers were recorded. Therefore, all findings and recommendations are tempered by this context.

RECAP Major Findings for 2019-2020:

Students:

- Overall, 68% of Universal Pre-Kindergarten (UPK) UPK students fell in either the normal range or possibly gifted and talented range on the Brigance III at the time of new entrance screening. This number is up 4% from the 2018-19 cohort of UPK students.
- At the winter Child Observation Record–Advantage (COR+) data collection, approximately 20% of students were kindergarten ready
- At both the fall and winter times of COR+ data collection, female students scored significantly higher on the COR+ compared to their male peers (for students that had matching fall/winter data)
- Female students were more likely to be kindergarten ready in the winter compared to their male peers (for students that had matching fall/winter data) on the COR+.
- Students that were enrolled in Early Pre-Kindergarten (EPK) programming during the previous year and UPK programming in 2019-20 (EPK+UPK) entered UPK programming higher as measured by the COR+ compared to their UPK only attending peers. This statistically significant advantaged was also evident at the winter time of COR+ data collection.
- The EPK+UPK group of students was more likely to be kindergarten ready in the winter on COR+, when compared to the UPK only group.

Classrooms:

- Overall, Early Childhood Environment Rating Scale-3rd Edition (ECERS-3) (n=75) outcomes for RECAP classrooms remained fairly consistent with previous years' observations. The ECERS-3 overall score was 5.4 out of 7, the same as last year.
- The Classroom Assessment Scoring System (CLASS) performance outcomes across all three domains, as well as the CLASS overall (n=59) were the same or slightly better than previous years. The Emotional Support domain score was 6.8, the Classroom Organization score was 6.5, and the Instructional Support score was 4.6. The CLASS overall rose to 6.0, up 0.3 from the 2018-19 academic year.

Digital Learning:

- *Approximately 53% of RCSD students had fewer than 18 contacts out of a possible 44 days during the digital learning portion of the academic year as reported by RCSD teachers*
- *Approximately 38% of Community Based Organization (CBO) students had more than 53 contacts out of a possible 66 days during the digital learning portion of the academic year as reported by CBO teachers*

Parents and Families:

- The return rate for the Family Teacher Rating Questionnaire (***FTRQ – Family)*** fell to 30% in 2019-20 from 33% the prior year.
- Relationship quality between families and teachers, as measured by the FTRQ, remained overall very good in 2018-19 and 2019-20.
- Rates of daily reading to EPK and UPK children have increased since 2018-19.
- The percentage of families receiving books sent home at least monthly decreased in 2019-20.
- This year more families have heard of *ReadyRosie* than in 2018-19.
- Teachers were rated "A" by families 77% of the time.

Introduction to RECAP

Since its inception 28 years ago in 1992, RECAP's overall guiding principles have been to continuously improve pre-kindergarten (pre-k) classrooms, programs, and child outcomes through the use of its integrated and comprehensive information system. In addition to providing data to enhance children's, teachers', and systems' performance, RECAP translates data into usable information for parents and families, providers, and policy makers / funders through community collaboration, technical assistance, and professional development. RECAP fulfills a central role in local, regional, and statewide programs and interventions for children, as well as collective impact initiatives, by providing reliable information about the early childhood care and education systems in Rochester, as well as regional and national, early childhood systems via research, analysis and, literature reviews.

This year, as in years past, RECAP provided the following services to providers and policy makers:

- Professional development for teachers, paraprofessionals, family service professionals, and program administrators in the use of child screening measures, assessments, program quality rating scales, parent surveys, web-based data information system use (COMET®), and report interpretation.
- Efficient and user-friendly data collection (via COMET and scan form), processing, analysis, and reports which provide instant feedback at the child, parent, classroom, program, and system levels.
- Twice monthly review and planning Assessment Team meetings with community-based organizations including: Action for a Better Community (ABC) Head Start, Rochester City School District (RCSD) Department of Early Childhood, Early Childhood Development Initiative (ECDI), All Kids Thrive, ROC the Future and Children's Institute staff to analyze and synthesize information, recommend changes, and monitor the systematic quality of early education in Rochester.
- Community Advisory Group meetings to facilitate partnership with the local community, families, professionals, and other stakeholders.
- Presentations of aggregate outcomes for EPK and UPK to support informed decision-making for practices and policies in support of children, families, and programs.

Information-based decisions using RECAP data are integrated into Rochester's early childhood continuous improvement system that strives to ensure and maintain high quality pre-k programs and improve students' overall performance and outcomes.

RECAP uses reliable and valid measures to assess program quality and student outcomes. The Early Childhood Environment Rating Scale – Third Edition (ECERS-3) and Classroom Assessment Scoring

System (CLASS) were administered by independent observers to measure overall classroom quality and teacher-child interactions, respectively. In keeping with national trends, state requirements, and local needs, and for screening early in the school year, the Brigance Early Childhood Screen III (Brigance III) was administered by teachers within the first 90 days of the school year. To measure levels of students' competencies and needs within academic, motoric, cognitive, and social/emotional domains, the Child Observation Record - Advantage (COR-Advantage or COR+), an "authentic" observational tool, was completed by teachers two times – fall and winter. The Teacher-Child Rating Scale-short form (T-CRS-sf), measuring social and emotional skills, was completed by teachers in the fall.

The 2019-20 RECAP assessment year was shortened in March, 2020 due to the COVID-19 pandemic and subsequent school closings. In New York State, the Governor enacted a 'New York on Pause' executive order in mid-March, declaring that schools be closed for the foreseeable future. The Governor extended that executive order on April 9th, 2020, mandating that schools would remain closed until April 29th, 2020. Finally, in late April, Gov. Cuomo closed schools for the remainder of the 2019-2020 academic year.

Schools and early childhood center facilities remained closed with the exception of a few childcare programs which remained open to support families with parents/guardians that were essential workers and could not work at home. Buildings were closed, but prekindergarten programming continued for many but not all young students. Teachers provided virtual programming to the greatest extent possible given significant systemic barriers including lack of access to internet and computer equipment for many families. In Rochester, 37% of families have limited online functionality. Many alternate methods were utilized by prekindergarten teachers to communicate and engage with families and students including phone call, a physical delivery of learning resources, and others which are described later in this report in the home-learning attendance section.

https://rocthefuture.org/digital-divide-in-rochester-initial-data/ (for the references section)

After schools closed, the New York State Board of Regents cancelled Regents Examinations and standardized assessments for school districts. Therefore, spring/post RECAP prekindergarten student assessments were not completed this year. The following sections represent an abbreviated assessment year for RECAP.

Because of the school closures, many classroom observations could not be completed this year. Classroom observations typically begin in February and are completed by late May of the academic year. For this academic year, only 75 ECERS-3 and 59 CLASS observations were completed.

A typical RECAP year includes teachers' completion of Child Observation Record—Advantage (COR+) three times during the school year (fall, winter, and spring). This year only fall and winter assessments were completed. Similarly, only fall T-CRS (sf) were completed this year.

What follows are classroom quality and student outcome narratives for the partial academic year. Caution is advised when using this data to make policy decisions focused on classroom quality due to the reduced numbers of observations completed.

Program Quality

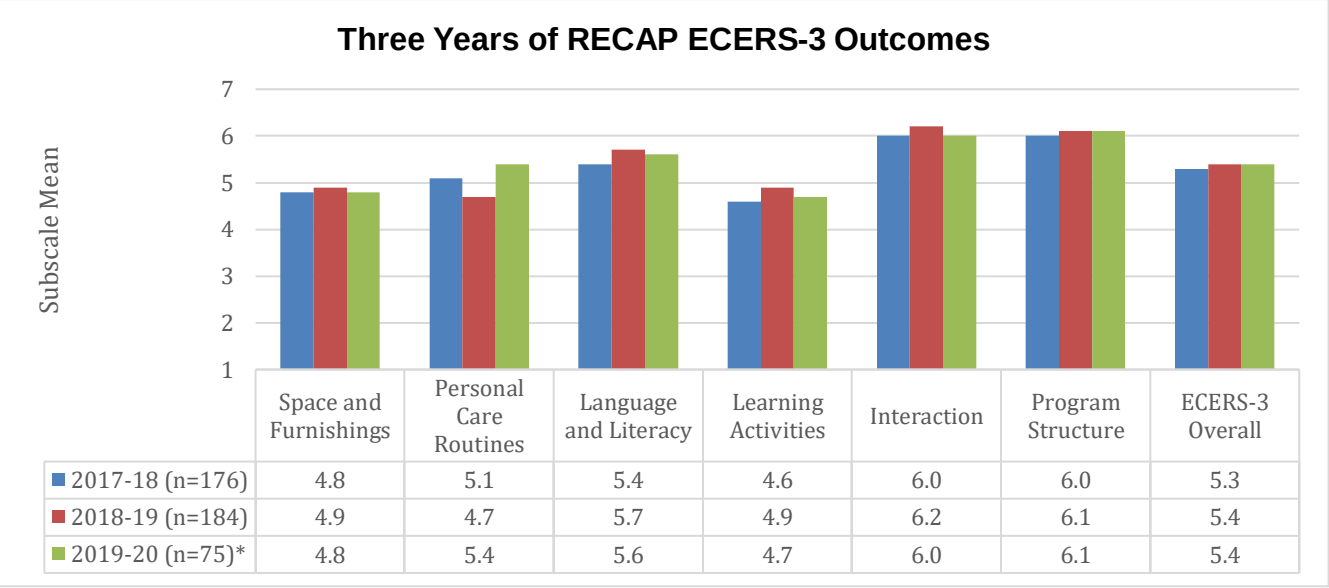
The following sections will review RECAP classroom quality outcomes as measured by the ECERS-3 and teacher-student interaction quality as measured by the CLASS. Each section will consist of a broad review of outcomes from the preceding three years, followed by presentations of results from UPK and EPK classrooms separately.

ECERS-3 Aggregate Results

The 2019-20 academic year marked the fourth consecutive year that the relatively newly developed ECERS-3 was implemented in Rochester RECAP classrooms. As noted earlier, this academic year was cut short because of the COVID-19 pandemic. The following ECERS-3 overview, EPK discussion, and UPK discussion are based upon results from classrooms that were observed before the Governor's executive order to close non-essential businesses was enacted in mid-March. As has been customary in RECAP, classroom observations do not typically begin until the beginning of February of the academic year. Therefore, in the brief time that observers had the opportunity to visit classrooms, only 75 classrooms received ECERS-3 observations.

Overall, ECERS-3 outcomes for RECAP classrooms remained fairly consistent with previous year observations. The ECERS-3 overall score across all classrooms assessed was 5.4, the same score as last year. The ***Personal Care Routines*** subscale saw the biggest jump, rising .7 of a point from last year.

Figure 1. Three Years of RECAP ECERS-3 Outcomes



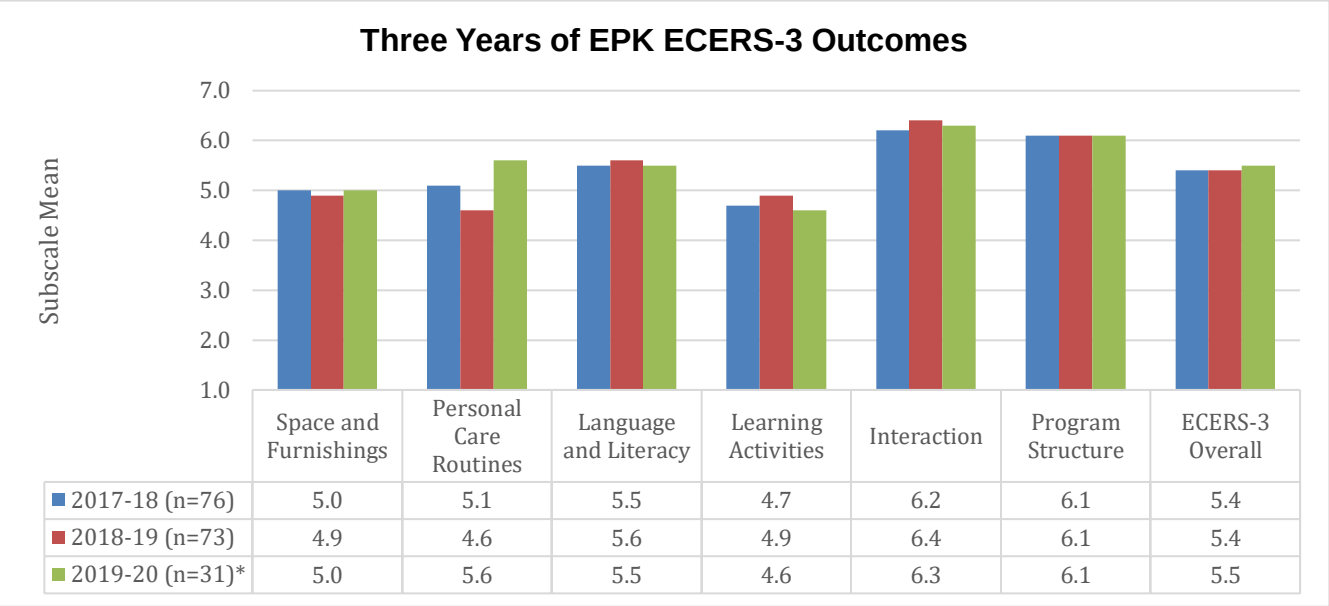
	Space and Furnishings	Personal Care Routines	Language and Literacy	Learning Activities	Interaction	Program Structure	ECERS-3 Overall
2017-18 (n=176)	4.8	5.1	5.4	4.6	6.0	6.0	5.3
2018-19 (n=184)	4.9	4.7	5.7	4.9	6.2	6.1	5.4
2019-20 (n=75)*	4.8	5.4	5.6	4.7	6.0	6.1	5.4

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

EPK ECERS-3 Outcomes

Due to the RCSD closure in mid-March, only 31 EPK classrooms were observed during the 2019-20 academic year. Overall, subscale scores from this sample compared with previous years full sample remained fairly consistent. The ***Personal Care Routines*** subscale made great improvement, rising a full point from the previous academic year. The ECERS-3 overall score rose by 0.1 from the 2018-19 academic year.

Figure 2. Three Years of EPK ECERS-3 Outcomes



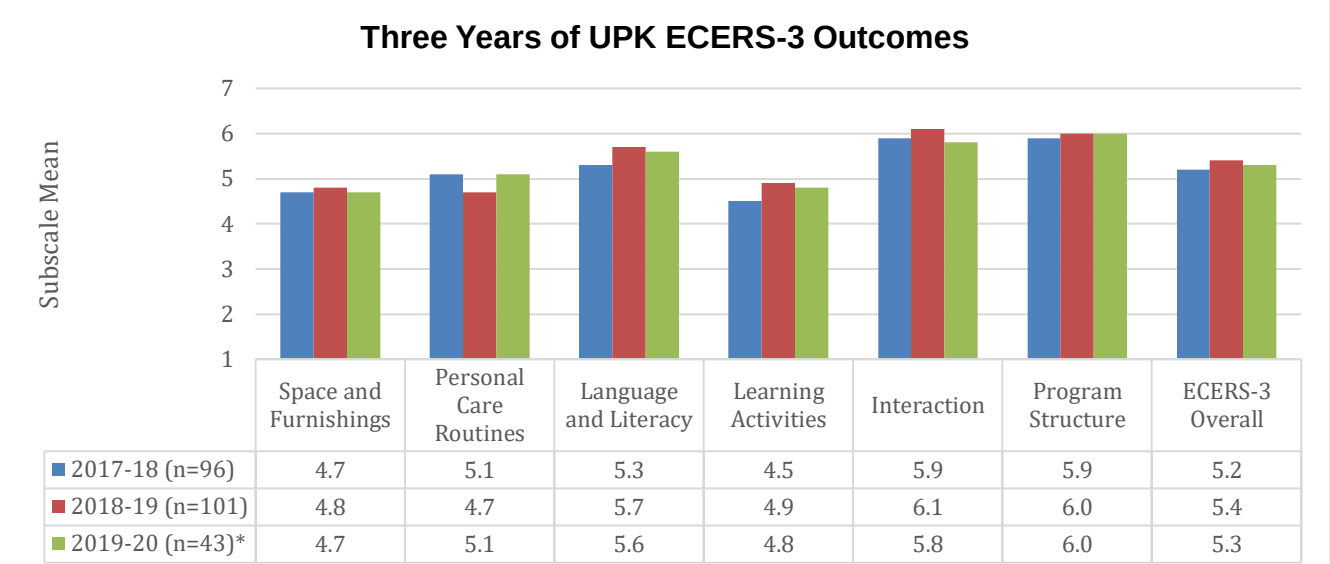
	Space and Furnishings	Personal Care Routines	Language and Literacy	Learning Activities	Interaction	Program Structure	ECERS-3 Overall
2017-18 (n=76)	5.0	5.1	5.5	4.7	6.2	6.1	5.4
2018-19 (n=73)	4.9	4.6	5.6	4.9	6.4	6.1	5.4
2019-20 (n=31)*	5.0	5.6	5.5	4.6	6.3	6.1	5.5

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

UPK ECERS-3 Outcomes

As with EPK outcomes, UPK scores remained consistent with prior years. Similar to EPK programming, the UPK ***Personal Care Routines*** subscale made the largest jump, rising by 0.4 from the previous academic year. The ECERS-3 overall dropped by 0.1 from the 2018-19 academic year. Forty-three (43) UPK classrooms were observed with the ECERS-3.

Figure 3. Three Years of UPK ECERS-3 Outcomes



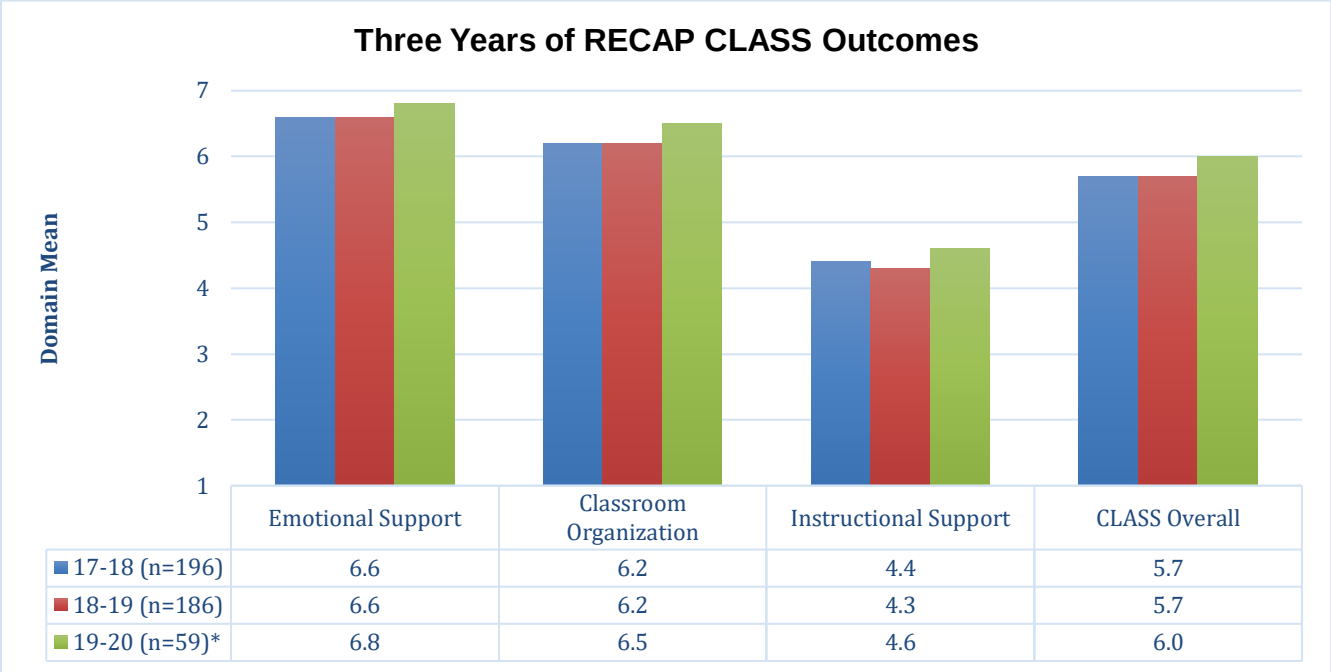
	Space and Furnishings	Personal Care Routines	Language and Literacy	Learning Activities	Interaction	Program Structure	ECERS-3 Overall
2017-18 (n=96)	4.7	5.1	5.3	4.5	5.9	5.9	5.2
2018-19 (n=101)	4.8	4.7	5.7	4.9	6.1	6.0	5.4
2019-20 (n=43)*	4.7	5.1	5.6	4.8	5.8	6.0	5.3

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

CLASS Aggregate Results

The 2019-20 academic year marked the 7th consecutive year that the CLASS was completed in RECAP classrooms across the Rochester community. As previously described, this year is a unique RECAP year. Due to the COVID-19 virus that spread across the globe in early 2020, RECAP observations were cut short due to school closures. There were 59 CLASS observations completed before schools closed in mid-March.

Figure 4. 2019-20 RECAP CLASS Outcomes



	Emotional Support	Classroom Organization	Instructional Support	CLASS Overall
17-18 (n=196)	6.6	6.2	4.4	5.7
18-19 (n=186)	6.6	6.2	4.3	5.7
19-20 (n=59)*	6.8	6.5	4.6	6.0

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

Figure 4 depicts RECAP CLASS outcomes for the past three years. Overall, scores slightly rose from the 2018-19 school year. The ***Emotional Support*** domain rose .2 of a point from the previous year. The ***Classroom Organization*** domain rose .3 of a point from the previous year. Similarly, the ***Instructional Support*** domain rose .3 of a point from the previous year. The large increases in the ***Classroom Organization*** and ***Instructional Support*** domain may be a result of a focus of professional development emphasizing the three items that make up the Instructional Support domain, which are ***Concept Development***, ***Quality of Feedback***, and ***Language Modeling***. However, it is difficult to make definite attributions as to the causes of changes in classroom quality. Although professional development is offered to classroom teachers throughout the community, it is not mandated, therefore a direct relationship between classroom quality and professional development is difficult to argue definitively. A recommendation that has been suggested in previous years has been to provide professional development focused on the CLASS to EPK and UPK teachers who would commit to attend 5-7 focused

and targeted professional learning opportunities. Potential relationships between the specific training teachers received and changes in associated CLASS results could thereby be identified.

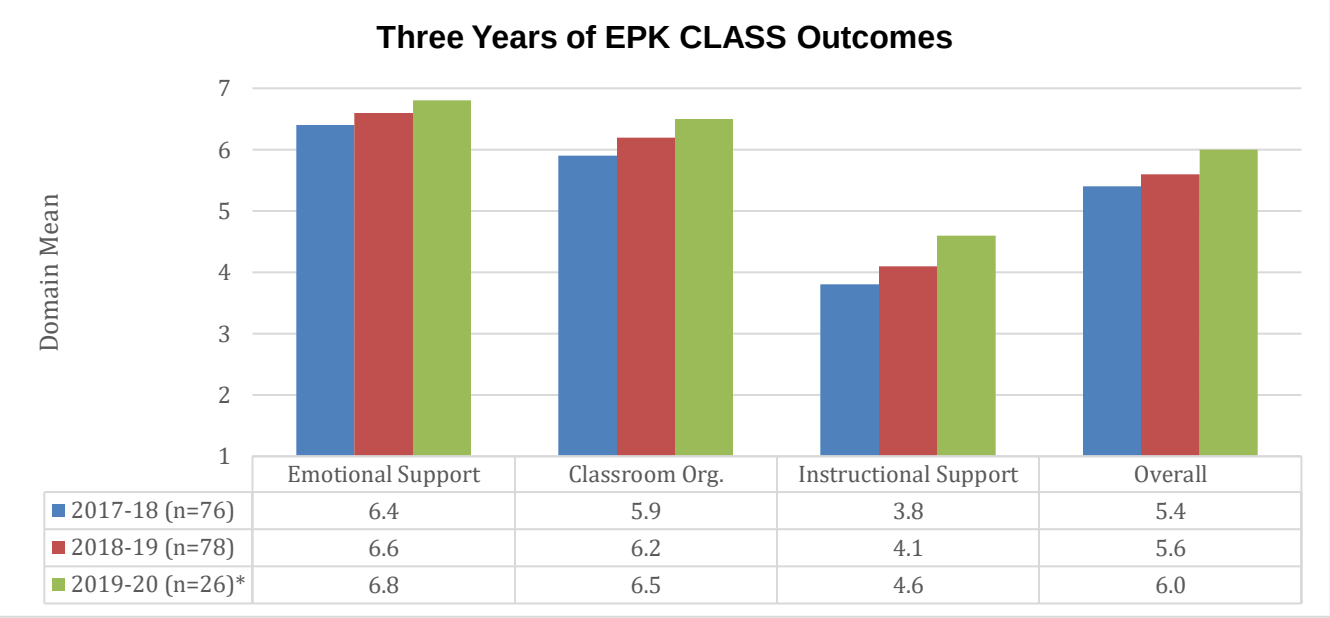
Another potential explanation is that the sample of teachers observed was biased. It is not unusual for "new"/less experienced teachers to wait until later in the school year (April and May) to be observed. This hypothesis was not tested statistically due, in part, to small sample sizes.

The following figures depict EPK and UPK CLASS outcomes over the past three years.

EPK CLASS Outcomes

EPK CLASS outcomes rose across the board compared to the 2018-19 academic year. The ***Emotional Support*** domain rose by 0.2 points, the ***Classroom Organization*** domain rose by 0.3 points, and the ***Instructional Support*** domain rose by half a point. The CLASS overall rose by .4 of a point from the previous year, up to 6.0 in 2019-20. Twenty-six EPK classrooms were observed in 2019-20.

Figure 5. Three Years of EPK CLASS Outcomes



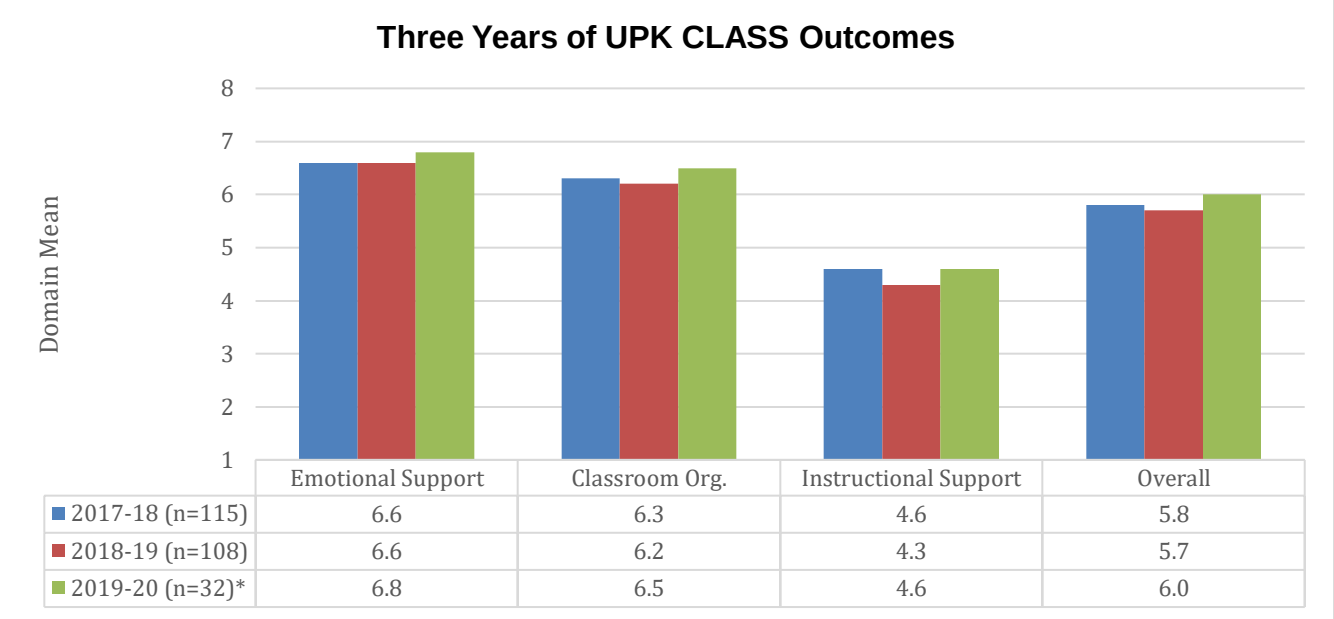
	Emotional Support	Classroom Org.	Instructional Support	Overall
2017-18 (n=76)	6.4	5.9	3.8	5.4
2018-19 (n=78)	6.6	6.2	4.1	5.6
2019-20 (n=26)*	6.8	6.5	4.6	6.0

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

UPK CLASS Outcomes

As with the EPK CLASS outcomes, UPK domain scores rose as well. The ***Emotional Support*** domain rose to 6.8, up .2 points from the previous year. The ***Classroom Organization*** domain rose .3 points from the 2018-19 school year, and the ***Instructional Support*** domain rose .3 of a point from the previous year, up to 4.6. The CLASS overall rose to 6.0 in 2019-20, up .3 of a point from the 2018-19 year.

Figure 6. Three Years of UPK CLASS Outcomes



	Emotional Support	Classroom Org.	Instructional Support	Overall
2017-18 (n=115)	6.6	6.3	4.6	5.8
2018-19 (n=108)	6.6	6.2	4.3	5.7
2019-20 (n=32)*	6.8	6.5	4.6	6.0

Note: * depicts shortened RECAP year due to COVID-19 closures in Rochester community

Student Outcomes

The following sections will detail student outcomes as measured by the, COR Advantage (COR+), Brigance and Teacher-Child Rating Scale (T-CRS). The first part will review COR + outcomes, first describing EPK student outcomes, followed by UPK student outcomes. Second, Brigance III results will be addressed, first about EPK students and then UPK students. Finally, the T-CRS outcomes will be described.

COR Advantage

EPK Student Outcomes

The following section describes EPK student outcomes for the 2019-20 academic year. Due to school closures in March, digital programming was offered to families across the community. Digital learning began on March 16th and concluded on June 19th. Student outcome data was collected only in the fall and winter of the academic year. Digital learning outcomes are shared in a following section of this report, COR Advantage information captured student outcomes from the beginning of the school year through a second data collection in the middle of March, 2020 only. Table 1 depicts EPK student matched COR Advantage data. The sample consists of students for whom matching fall/winter data.

Overall, students made growth across all eight COR +categories. As has been documented in previous RECAP reports (Infurna et al., 2019), EPK students historically have entered EPK programming with lower ***Language, Literacy, and Communication*** & ***Math*** outcomes in the fall; this remains true this year. Similarly, students have recorded the highest performance in the ***Physical Development & Health*** category and this year this observation remains true.

Table 1. 2019-20 EPK Fall and Winter COR Advantage Outcomes (matched cohort only)

2019-20 EPK Fall and Winter COR Advantage Data (matched cohort only)

	Fall 2019			Winter 2020			Change		
Category	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Approaches to Learning	955	2.3	0.7	953	2.9	0.7	953	0.6	0.6
Social Emotional Development	955	2.3	0.7	953	2.9	0.7	953	0.6	0.6
Physical Development and Health	955	2.8	0.7	955	3.5	0.6	955	0.7	0.5
Language, Literacy, and Communication	952	2.1	0.6	950	2.7	0.6	947	0.6	0.4
Math	950	2.1	0.6	939	2.7	0.6	935	0.6	0.5
Creative Arts	949	2.3	0.7	945	3.0	0.7	941	0.7	0.6
Science and Technology	946	2.2	0.7	954	2.9	0.6	945	0.7	0.5
Social Studies	933	2.2	0.7	950	2.9	0.7	929	0.7	0.6
COR Overall	955	2.3	0.6	955	2.9	0.6	955	0.6	0.4

UPK Student Outcomes

The following section presents UPK COR + outcomes. The data reviewed in Table 2 contains only matched student information, meaning that only students that had matching fall/winter data are shown below. Similar to EPK student entrance, UPK students have historically entered UPK programming with the lowest scores in ***Language, Literacy, and Communication*** and ***Math*** categories. As was the case with EPK student outcomes, UPK students enter with the highest category mean in ***Physical Development & Health***. These observations held this year too.

UPK students made great gains from the fall to winter times of data collection. Student scores in Math and Creative Arts almost grew by .9 points on average from the fall data collection (November, 2019) to the winter data collection (March, 2020).

Table 2. 2019-20 UPK COR Fall and Winter Advantage Outcomes (matched cohort only)

2019-20 UPK Fall and Winter COR Advantage Data (matched cohort only)

	Fall 2019			Winter 2020			Change Scores		
Category	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Approaches to Learning	1625	3.0	0.7	1625	3.8	0.8	1625	0.8	0.7
Social Emotional Development	1625	3.0	0.8	1625	3.8	0.9	1625	0.8	0.7
Physical Development and Health	1625	3.5	0.8	1622	4.3	0.8	1622	0.8	0.7
Language, Literacy, and Communication	1625	2.8	0.7	1625	3.5	0.8	1625	0.7	0.5
Math	1609	2.8	0.7	1608	3.7	0.9	1605	0.9	0.6
Creative Arts	1610	3.1	0.9	1610	4.0	0.8	1605	0.9	0.7
Science and Technology	1603	2.9	0.8	1620	3.6	0.9	1598	0.7	0.6
Social Studies	1605	3.0	0.8	1587	3.7	0.9	1585	0.7	0.7
COR Overall	1625	3.0	0.7	1625	3.8	0.8	1625	0.8	0.5
Kindergarten Ready*	24			332					
Percent	1			20					

Note: * HighScope defines school readiness as having an overall COR Advantage score >= 4.0 and all eight category scores >= 3.75.

COR Overall by Gender

The following section reports upon UPK student COR + Overall scores at fall, winter, and change by gender. Female students entered UPK programming statistically higher than males, and also maintained that slight statistical advantage through the winter. However, change among female and male students was similar from fall to winter.

Table 3. UPK Student COR Overall Mean at Fall, Winter, and Change by Gender

Category	Male (n=789)		Female (836)		*t* Value
	Mean	Std	Mean	Std	
COR Overall Fall	3.0	0.7	3.1	0.7	4.1*
COR Overall Winter	3.7	0.8	3.9	0.7	3.7*
COR Overall Change	0.8	0.5	0.8	0.5	0.02

Note: * significant p < .001

UPK Student COR+ Kindergarten Readiness at Winter by Gender

The following section depicts UPK student kindergarten readiness at winter data collection. The student sample is comprised of only students that had matching fall/winter data. In total, 23% of female students were K-ready and 18% of male students were K-ready, a statistically significant difference.

Table 4. UPK Student Kindergarten Readiness by Gender at Winter Time of Data Collection

UPK Student School Readiness at Winter by Gender (matched cohort)

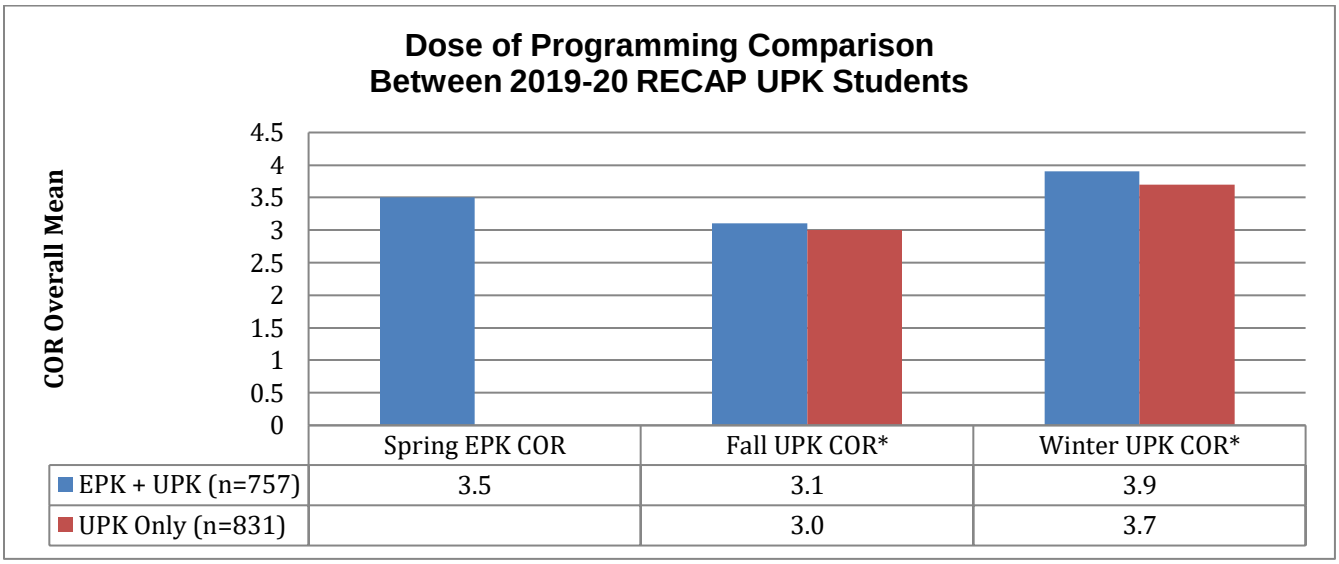
Gender	N	Kindergarten Ready*	Percent of Gender Ready	Chi-square
Female	835	190	23%	9.6^
Male	789	142	18%	
Total	1624	332		

Note: * HighScope defines school readiness as having an overall COR Advantage score >= 4.0 and all eight category scores >= 3.75; ^ significant p < .05

Dosage of Programming

Recent empirical literature has reported that students that are enrolled in two years of early childhood education program, compared to their peers that are only enrolled for one year, are more prepared to make a successful transition to kindergarten (Ansari et al., 2019; Jenkins et al., 2016). The following section reports on RECAP students that participated in two years of programming (EPK+UPK) compared to their peers that were only enrolled in UPK programming. Students in the two year cohort (EPK-2018-19 + UPK 2019-20) had matching EPK fall/spring COR Advantage data as well as matching UPK fall/winter COR Advantage data. The one-year group (UPK only 2019-20) had matching fall/winter COR Advantage data. Figure 7 depicts their COR Advantage overall means at three times of data collection.

Figure 7. Dosage of Programming Comparing Two 2019-20 RECAP UPK Student Groups



Note: * t-test significant at p <.05

The EPK+UPK cohort of students completed their EPK year in the spring, 2019. Their COR + overall mean when they left EPK was 3.5. Upon entering UPK, their fall UPK overall mean was 3.1, the "summer slide" was 0.4 points. The EPK+UPK COR overall mean was statistically significantly higher than that of their peers that did not attend EPK. Similarly, the EPK+UPK cohort had a statistically significantly higher COR + overall mean compared to their UPK only peers.

Dosage of Programming and Kindergarten Readiness

In prior years' analyses investigating the dosage effects of programming on kindergarten readiness, readiness was measured during the spring data collection in June of the academic year. With the onset of the pandemic, kindergarten readiness was calculated using data collected in the winter, 2020. Kindergarten readiness numbers are expectedly much lower than they typically are at the spring data

collection point. Two groups of students were included in the analysis. The first group (EPK+UPK) had a full year of EPK programming before transitioning to UPK. The second group (UPK only) was enrolled in UPK only programming. However, it is impossible to know whether the UPK only group participated in some other full or half-day programming before transitioning to UPK. That is a limitation of this analysis.

Table 5. UPK Student Kindergarten Readiness by Dosage of Programming

Group	Kindergarten Ready	Not Ready	Percent Ready	Chi-square
EPK+UPK (n=757)	186	571	25%	13.07*
UPK only (n=831)	143	688	17%	

Note: * significant p < .05

Table 5 depicts UPK student kindergarten readiness, by overall dose of programming, at the winter data collection. Students in the EPK+UPK 2-year cohort were more likely to be kindergarten ready in the winter compared to their peers that were only enrolled in a single year of UPK programming.

Brigance III

This section illustrates EPK student screening status (Table 6) and UPK student screening status (Table 7) for the 2019-20 academic year.

EPK Student Screen Status

Table 6. 2019-20 EPK Student Screen Status

EPK Screen Status 2019-20				
Screen Status	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1- Determine need for formal evaluation	321	28%	321	28%
2- Monitor closely	45	4%	366	32%
3- Functioning in normal range	699	61%	1065	93%
4- Possibly talented and may need enhanced work	83	7%	1148	100%

Table 6 depicts EPK student screen status for the 2019-20 school year. Overall, 68% of EPK students entered programming either functioning in the normal range or the possibly gifted and talented range. The combined percentage is slightly lower than the EPK cohort in 2018-19 (73%). Our data does not allow us to identify the reason(s) the percentage is lower this year compared to the previous academic year. It may be because the 2018-19 cohort of students may have had more enrichment opportunities at home, in Early

Head Start, or other home-based early childhood settings, or that the current cohort of EPK students may not have had as many cognitively stimulating opportunities as the previous cohort.

UPK Student Screen Status

Table 7. 2019-20 UPK Student Screen Status

UPK Screen Status 2019-20				
Screen Status	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1- Determine need for formal evaluation	455	28%	455	28%
2- Monitor closely	66	4%	521	32%
3- Functioning in normal range	954	58%	1475	90%
4- Possibly talented and may need enhanced work	159	10%	1634	100%

Table 7 depicts UPK student screens status outcomes for the 2019-20 school year. Overall, 68% of UPK students fell in either the normal range or possibly gifted and talented. This percentage is up 4% from the 2018-19 UPK student cohort (64%). Students having a second year of Pre-K may explain the difference in readiness as assessed by the Brigance.

Social Emotional Outcomes

Teacher-Child Rating Scale—Short Form

The 2019-20 academic year will serve as a benchmark year for the newly introduced Teacher-Child Rating Scale-Short Form (T-CRS SF). The original T-CRS was comprised of 32 items that made up four different sub-scales. Previous research conducted on the T-CRS reported that similar student outcomes could be collected with fewer items (Weber et al., 2016). After discussions with RECAP A-Team members, it was decided that in the 2019-20 academic year the T-CRS SF would be introduced to EPK and UPK teachers. What follows are EPK and UPK student outcomes on the newly implemented T-CRS SF. Due to the closure of schools, only fall T-CRS SF data were collected on the 2019-20 cohort of EPK and UPK students. Teachers completed the instruments prior to December 1, 2019.

EPK Student Outcomes

The following section provides a review of EPK student outcomes as measured by the newly implemented T-CRS SF. Table 8 depicts student domain scores in the fall. Table 9 depicts student risk count at the fall time of data collection. Finally, Table 8 reports on EPK students with multiple risks.

Table 8. 2019-20 EPK Student Domain Scores

EPK T-CRS SF Fall Outcomes

Domain	N	Mean	Std Dev
Task Orientation	1264	12.5	3.7
Behavior Control	1265	11.8	3.8
Assertiveness	1265	13.0	3.8
Peer Social Skills	1266	15.1	2.9

Table 9. 2019-20 EPK Student Risk Count

EPK Student Fall Risk Count

Risk Count	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	799	66%	799	66%
1	211	17%	1010	83%
2	110	9%	1120	92%
3	65	5%	1185	97%
4	31	3%	1216	100%

Overall, 66% of EPK students entered programming in the fall with no identified social-emotional risks and 17% of EPK students had multiple observed risks. It is difficult to make comparisons with previous years due to the change in instruments.

UPK Student T-CRS Outcomes

The following section will review UPK student domain scores (Table 10), UPK student risk count at fall (Table 11), and students with multiple risks (Table 12).

Table 10. 2019-20 UPK Student Domain Scores

UPK T-CRS SF Fall Outcomes

Variable	N	Mean	Std Dev
Task Orientation	1881	12.9	3.7
Behavior Control	1879	12.3	4.0
Assertiveness	1880	14.0	3.6
Peer Social Skills	1881	15.3	2.8

Table 11. 2019-20 UPK Student Risk Count

2019-2020 UPK Student Fall T-CRS Risk Count

Risk Count	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1248	69%	1248	69%
1	307	17%	1555	86%
2	147	8%	1702	95%
3	68	4%	1770	98%
4	28	2%	1798	100%

Table 11 depicts UPK student risk count totals in the fall of the 2019-20 academic year. Overall, 69% of students entered programming with no observable risks. Table 12 reports on UPK students with multiple risks observed at the beginning of the 2019-20 academic year. In total, 14% of UPK students were observed to have multiple risks at the beginning of the academic year.

Table 12. 2019-20 UPK Student Multiple Risk Count

2019-2020 UPK Student Fall T-CRS Multiple Risk Count

Multiple Risk	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	1555	86%	1555	86%
Yes	243	14%	1798	100%

Home Based Learning

This section describes digital learning opportunities provided to students in the Rochester community. Beginning on March 16, 2020 and concluding with the official close of the 2019-20 academic year on Friday, June 19, 2020, school based and community based EPK and UPK teachers provided distance learning opportunities for their students. What follows are descriptive statistics for community engagement. It is important to note that RCSD teachers were not immediately required to commence collection of engagement data beginning in the middle of March 2020. Rather, RCSD teachers were required to collect engagement data for 44 academic days, beginning on Monday, April 20th. CBO teachers were required to collect engagement data for 66 academic days, spanning the duration of the digital learning portion of the school year (March 16, 2020-June 19, 2020). To allow ease of comparison, we performed additional analyses on student digital engagement to report similar time frames of engagement for both CBO and RCSD programming. Therefore, what follows is an overview of CBO digital engagement by contact type over the span of 66 days, then CBO digital engagement by daily percentage, RCSD digital engagement, and finally a side-by-side overview of digital engagement between RCSD and CBO programming based on a common 44-day period.

A summary of Community Based Organization (CBO) contact type definitions:

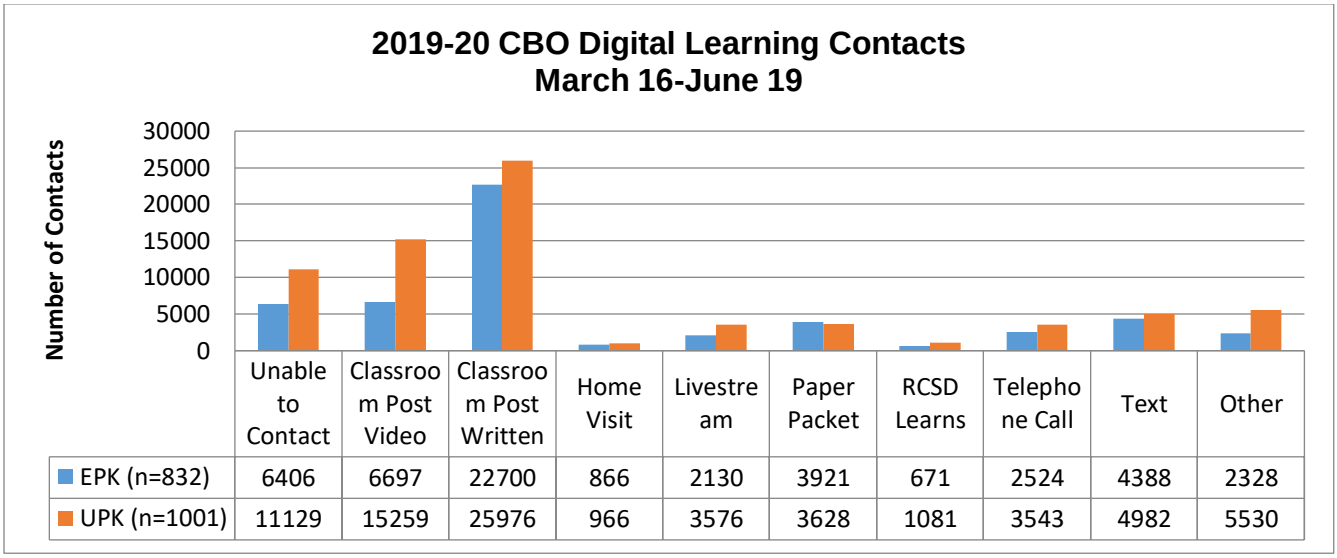
- Unable to Contact—A teacher was unable to contact a student's family for a daily activity
- Classroom Post Video—A family member engaged with a classroom post in video format
- Classroom Post Written—A family member engaged with a classroom post in written format by leaving a comment
- Home Visit—A classroom teacher visited the families' homes
- Livestream—A child participated in a live classroom teaching session (ex. Zoom)
- Paper Packet—A family member retrieved a paper packet of activities from an RCSD distribution center across the city
- RCSD Learns—An RCSD-provided digital learning tool for families to permit engagement with their classroom teacher and/or to be offered additional learning materials digitally
- Telephone Call—A telephone call exchange between a classroom teacher and a child's family member
- Text Message—A text message exchange between a classroom teacher and a child's family member
- Other—A contact type other than the one's listed above

CBO Distance Learning

The following section will report on CBO student digital learning contacts. Figure 8 reports the total number of contacts by contact type reported by EPK and UPK programs. Figure 9 depicts the total number of contacts reported by EPK and UPK programming. Table 13 reports upon the average number of contacts by student type.

Figure 8.

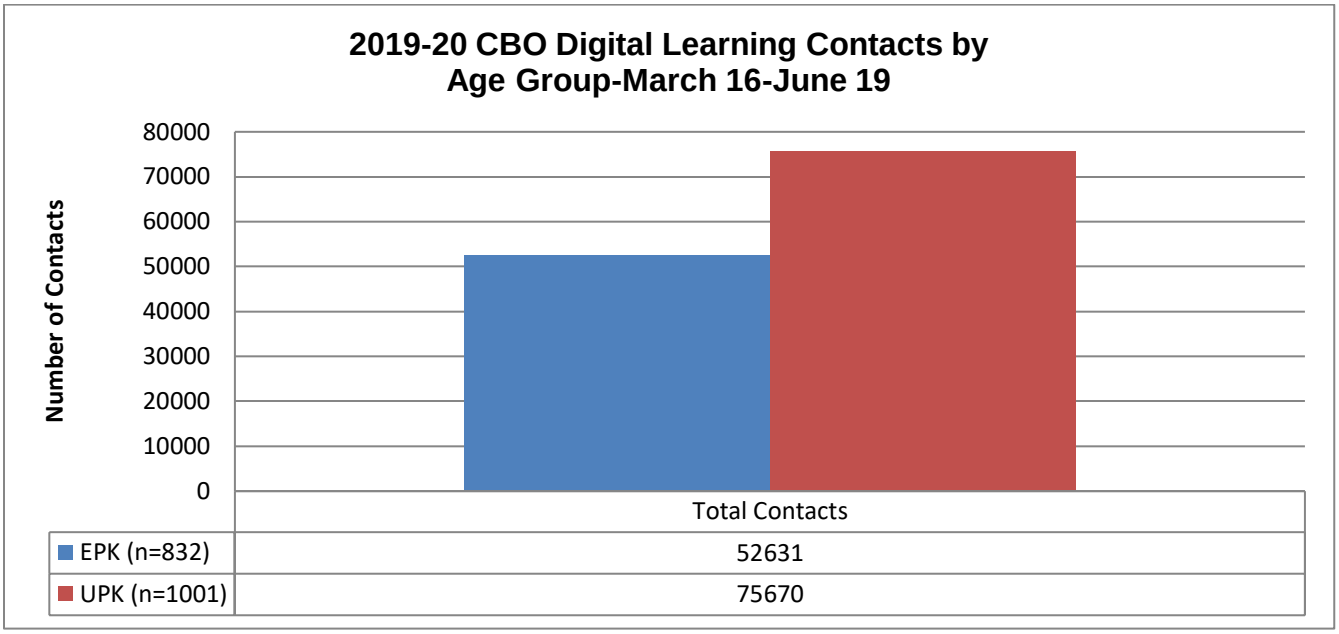
2019-20 CBO Digital Learning by Contact Type



	Unable to Contact	Classroom Post Video	Classroom Post Written	Home Visit	Livestream	Paper Packet	RCSD Learns	Telephone Call	Text	Other
EPK (n=832)	6406	6697	22700	866	2130	3921	671	2524	4388	2328
UPK (n=1001)	11129	15259	25976	966	3576	3628	1081	3543	4982	5530

The highest reported contact type for both EPK and UPK students was ***Classroom Post Written,*** followed by ***Classroom Post Video***. Other contact types were used much less frequently.

Figure 9. 2019-20 CBO Overall Digital Learning Contacts by Age Group



Overall, there were a combined total of 128,301 contacts for CBO EPK and UPK programming. The mean number of total contacts for UPK students was 75.6. The mean number of total contacts for EPK students was 63.3. On average, students in CBO classes were contacted more than once a day.

Table 13 displays the mean number of contacts by ***contact type*** by EPK and UPK for CBO students. A t-test analysis compared the number of contact types that compared EPK and UPK student engagement. Statistically significant differences were observed in the number of classroom video, livestream, phone call, and other contact types between EPK and UPK students. Similarly, numbers of UPK student total contacts were significantly greater those of their EPK peers. Also, the inability to contact UPK students and engage with their families was also significantly higher compared to their EPK peers. With the data we have collected, it is difficult to ascertain why UPK family engagement was higher across many of the contact types compared to EPK family engagement. A possible explanation might be that families of UPK children were more engaged because of their understanding that their child(ren) would be transitioning to kindergarten in the fall and that they wanted to have their children as best prepared as they could under the digital learning portion of the academic year. Another reason may be that UPK classroom teachers offered more opportunities for digital engagement compared to their EPK classroom teaching peers, in which more UPK families had opportunities to connect with the activities and opportunities offered by the UPK teachers. Table 14 reports on CBO student daily digital engagement over the course of 44 days that digital engagement was tracked by CBO teachers.

Table 13. CBO Student Mean Contacts by Contact Type

Average Contacts per CBO Student (total days n =66)

Grade	Unable to Contact*	Classroom Video*	Classroom Post	Home Visit	Livestream*	Paper Packet	RCSD Learns	Call*	Text	Other*	Total Contacts*
EPK (n=832)	7.7	8.0	27.3	1.0	2.6	4.7	0.8	3.0	5.3	2.8	63.3
UPK (n=1001)	11.1	15.2	26.0	1.0	3.6	3.6	1.1	3.5	5.0	5.5	75.6

Note: * significant p < .05

Table 14. CBO Student Digital Percentage of Contact Days by Percent and Frequency

CBO (n=44 days; April 20 - June 19)

Percent of Contact Days	Frequency	Percent	Cumulative Frequency	Cumulative Percent
>=90%	558	30%	558	30
80%-89%	225	12%	783	42
61%-79%	139	8%	922	50
41%-60%	199	11%	1121	61
21%-40%	367	20%	1488	81
0%-20%	356	19%	1844	100

Table 14 depicts digital learning as measured by percentage of contact days for CBO students based on the same 44-day span as was used by RCSD programs to allow direct comparisons. Overall, 42% of CBO students experienced engagement greater than 80% of the time over the course of the digital learning portion of the academic year.

The following section will report on RCSD student digital engagement over the course of the same time period, April 20 – June 19. Table 15 reports on RCSD student digital engagement.

RCSD Digital Learning

Table 15. RCSD Student Digital Learning – Frequency by Percentage of Days Making Contact

Percent of Contact Days*	Frequency	Percent	Cumulative Frequency	Cumulative Percent
>=90%	145	11%	145	11%
80%-89%	117	9%	262	20%
61%-79%	197	15%	459	34%
41%-60%	171	13%	630	47%
21%-40%	235	18%	865	65%
0%-20%	475	35%	1340	100%

Note: * total possible days attended during distance learning instructional format was 44

Table 15 reports RCSD student percent of contact days as reported by RCSD teachers. In total, 20% of students *greater than 80% contact days* over the digital learning portion of the academic year. Our data do not allow us to definitely state reasons why CBO teachers had higher digital contact opportunities recorded with their students. It is plausible that CBO teachers were more successful with student engagement because families had experienced more frequent and on-going communication with center directors, family service providers, and classroom teachers prior to mid-March. CBO teachers were encouraged to continuously track daily engagement with their students and families over that time period. Another reason might be that a majority of our community based programs have only a handful of classrooms, in which it is may be easier for classroom teachers to maintain contact with their students because of more supports available to them within their buildings. Table 16 depicts combined CBO and RCSD digital engagement from April 20 – June 19.

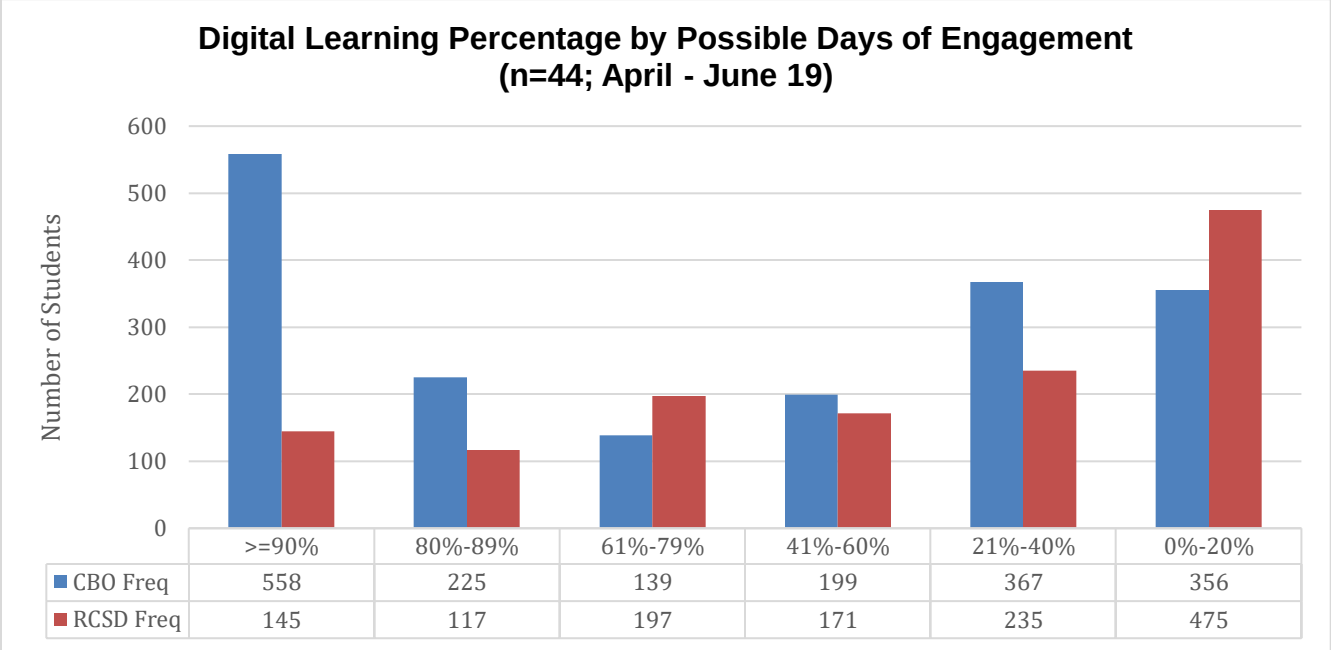
Table 16. RECAP Student Digital Percentage of Contact Days by Percent and Frequency

RECAP Student Digital Engagement by Possible Days of Engagement (n=44 days; April 20 - June 19)

Percent of Contact Days	Frequency	Percent	Cumulative Frequency	Cumulative Percent
>=90%	703	22%	703	22%
80%-89%	342	11%	1045	33%
61%-79%	336	11%	1381	44%
41%-60%	370	12%	1751	56%
21%-40%	602	19%	2353	75%
0%-20%	831	26%	3184	100%

When taken as a whole, 33% of EPK and UPK students in the Rochester community had daily engagement greater than 80% of the time. This was a heroic effort made by classroom teachers, staff, providers, center directors, and administrators. Figure 10 depicts a side-by-side comparison of CBO and RCSD digital engagement over the span of 44 days (April 20 – June 19).

Figure 10. Digital Learning Percentage by Possible Days of Engagement



	>=90%	80%-89%	61%-79%	41%-60%	21%-40%	0%-20%
CBO Freq	558	225	139	199	367	356
RCSD Freq	145	117	197	171	235	475

Family Perspectives

Family and Provider/Teacher Relationship Quality Measures

In the fall of 2016, RECAP began using the Family and Provider/Teacher Relationship Quality (FPTRQ) measures, which were developed by early education researchers (Kim et al, 2015) at Westat and Child Trends to obtain feedback from preschool program participants about relationships between teachers and families. The development of these measures was funded by the U.S. Department of Health & Human Services' Office of Planning, Research & Evaluation, part of the Administration for Children & Families.

RECAP used three of five questionnaires developed by Kim et al, 2015: FTPRQ – Parent, FTPRQ – Provider/Teacher, and FTPRQ – Director. RECAP changed the titles to ***Family and Teacher Relationship Quality*** (***FTRQ***): ***FTRQ – Family***, ***FTRQ – Teacher***, and ***FTRQ – Director***.

For a more in-depth history of RECAP's adoption of these measures, see the Rochester Early Childhood Assessment Partnership Twentieth and Twenty-First Annual Reports (Infurna et al, 2017; Infurna et al, 2018).

The results presented here pertain to the ***FTRQ – Family***. The full analysis of ***FTRQ*** measures can be found in a separate technical report, 2019-20 RECAP Annual Report: Family Perspectives (Embt, 2020).

FTRQ – Family

The ***FTRQ – Family*** asks caretakers general questions about how they interact with their children's teachers. It assesses three constructs and eight subscales which describe family and teacher relationship quality from the family perspective. Please refer to the Twentieth, Twenty-First, or Twenty-Second Rochester Early Childhood Assessment Partnership Annual Report for complete definitions of all constructs and subscales, measure modifications, and scoring parameters. The ***FTRQ – Family*** contains 25 questions rated on a 1-4 Likert scale, with 4 being the most desirable score. Of note, respondent scores were computed only if more than 90% of questions within the construct or subscale were answered. However, excluding a respondent in one subscale or construct did not prevent that respondent from being included in a different subscale or construct.

In November 2019 (pre-test), the ***FTRQ – Family*** was distributed to each child enrolled in 209 RCSD Community-based Organization (CBO) and RCSD School-based prekindergarten classrooms (n=3,266 students' parents/caregivers). The ***FTRQ – Family*** was made available in English and Spanish. The COVID-19 pandemic, which closed schools to in-person instruction in March 2020, prevented the post-test distribution set for May 2020. Results reported for 2019-20 are based exclusively upon pre-tests.

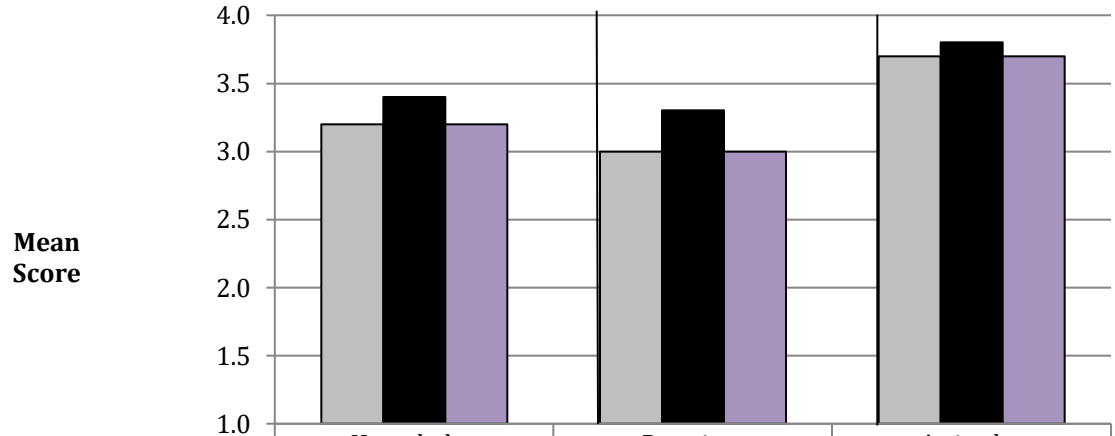
Table 17 shows rates of return for the ***FTRQ – Family*** from 2017-18 to 2019-20. Returns have been decreasing since 2017-18.

FTRQ - Family	2017-18	2018-19	2019-20
Return Rate Pre-test	42%	33%	30%
Return Rate Post-test	30%	20%	NA

Figures 11 and 12 present the mean construct and subscale scores, respectively, for 2018-19 and 2019-20.

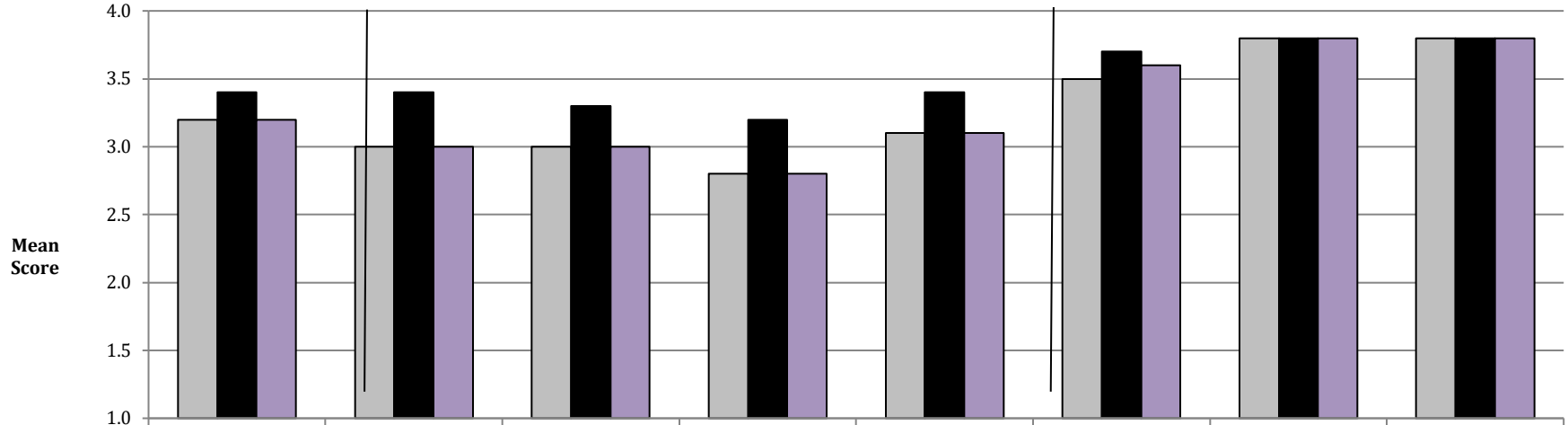
- Comparison of means from fall 2018 and fall 2019 show little or no numerical difference for any construct or subscale.
- The ***Attitudes*** (All Subscales) construct and the ***Attitudes/Understanding Context*** and ***Attitudes/Respect*** subscales have the highest numerical means over the three time points but exhibited little change from pre to post last year (i.e. 2018-2019).

Figure 11. ***FTRQ – Family*** **comparison of construct means for 2018-19 (pre and post) and 2019-20 (pre).**



	Knowledge (Family-specific)	Practices (All Subscales)	Attitudes (All Subscales)
2018-19 Pre (960 ≤ n ≤ 1019)	3.2	3.0	3.7
2018-19 Post (597 ≤ n ≤ 620)	3.4	3.3	3.8
2019-20 Pre (925 ≤ n ≤ 963)	3.2	3.0	3.7

Figure 12. ***FTRQ – Family*** **comparison of subscale means for 2018-19 (pre and post) and 2019-20 (pre).**



	Knowledge/ Family-specific	Practices/ Collaboration	Practices/ Responsiveness	Practices/ Communication	Practices/ Family-focused Concern	Attitudes/ Commitment	Attitudes/ Understanding Context	Attitudes/ Respect
2018-19 Pre (954 ≤ n ≤ 1009)	3.2	3.0	3.0	2.8	3.1	3.5	3.8	3.8
2018-19 Post (595 ≤ n ≤ 613)	3.4	3.4	3.3	3.2	3.4	3.7	3.8	3.8
2019-20 Pre (922 ≤ n ≤ 963)	3.2	3.0	3.0	2.8	3.1	3.6	3.8	3.8

Construct/Subscale

RCSD-specific Questions

In the summer of 2019, the FTRQ committee (a subset of RECAP's Assessment Team) refined 18 questions which were added to the end of the ***FTRQ – Family*** to gather information about RCSD initiatives with regard to books, technology, and school relationships (Table 18).

Table 18. *RCSD-specific Questions* about Books, *ReadyRosie*, and School Relationships in 2018-19 (pre and post) and 2019-20 (pre).

RCSD-specific Questions (Books, *ReadyRosie*, School Relationships)	**Percentage of families that:**							
	Look at books with their child daily [new question 2019-20]	Read to their child at least once a week	Read to their child daily	Receive books sent home at least monthly	Are satisfied or very satisfied with the books being sent home	Have never heard of *ReadyRosie*	Can talk to at least one person at their child's school about their concerns	Can talk to more than three people at their child's school about their concerns
Pre-test (November 2018)	NA	96% (n*=1019)	35% (n=1019)	86% (n=1004)	85% (n=1008)	62% (n=963)	91% (n=968)	46% (n=968)
Post-test (May 2019)	NA	96% (n=617)	33% (n=617)	98% (n=606)	96% (n=615)	44% (n=583)	94% (n=584)	50% (n=584)
Pre-test (November 2019)	46% (n=960)	95% (n=959)	41% (n=959)	79% (n=944)	82% (n=938)	53% (n=936)	94% (n=931)	52% (n=931)

*sample size (n) denotes the total number of responses to each question

- Proportions of families who read to their child at least once a week remained steady over three time points.
- Families who read to their child daily increased in 2019-20.
- Families who receive books sent home at least monthly decreased at pre-test in 2019-20 from 2018-19.
- Families who have never heard of *ReadyRosie* decreased at pre-test in 2019-20 from 2018-19.
- The families that reported having heard of *ReadyRosie* are most often informed by their child's teacher (both in 2018-19 and 2019-20).
- Families who can talk to at least one person or more than three people at their child's school about their concerns remained steady over three time points.

On a scale of "A" to "F", where "A" is the best grade, families were asked to rate aspects of their child's prekindergarten program. Results are presented in Table 3.

Table 19. *RCSD-specific Questions* - Grading the program in 2018-19 (pre and post) and 2019-20 (pre).

RCSD-specific Questions (Grading the program)	Percentage of families that gave a grade of "A" (Excellent) to their:			
	Teacher	Parent Contact	School Principal or Center Director	Prekindergarten program
Pre-test (November 2018)	73% (n*=1013)	50% (n=890)	56% (n=997)	66% (n=1011)
Post-test (May 2019)	84% (n=617)	60% (n=550)	61% (n=604)	74% (n=613)
Pre-test (November 2019)	77% (n=956)	57% (n=866)	60% (n=943)	70% (n=956)

*sample size (n) denotes the total number of responses to each question

- Teachers received ratings of "A" at a rate of 77%, the most compared to the other categories.
- Parent contacts and principals or center directors were rated "A" the least (57% and 60%, respectively) and were the only groups to receive "F" ratings, but at very small percentages (all were ≤2%).
- The prekindergarten program overall received an "A" rating from 70% of respondents.
- The prekindergarten program was rated "A" 61% of the time for meeting children's academic/learning needs and 62% of the time for meeting children's social and emotional needs.
- The prekindergarten program was rated "F" by 1% of respondents in regards to meeting children's academic/learning and social/emotional needs.

The ***FTRQ – Teacher***, comparison of ***FTRQ – Family*** and ***FTRQ – Teacher***, ***FTRQ – Director***, and FTRQ Usage survey results are available in a separate technical report (Embt et al, 2020).

In conclusion, with regard to the FTRQ measures, RECAP found:

- Return rates for each FTRQ measure was below 50% during 2019-20.
- ***FTRQ – Family*** construct, subscale, and Q7 means were almost the same, at pre-test in 2018-19 and 2019-20.
- In November 2019-20, 41% of respondents read to their child daily, an increase from November 2018-19.
- 77% of responding parents/caregivers gave their child's teacher a rating of "A" (Excellent).
- The COVID-19 pandemic, which closed schools to in-person instruction in March 2020, prevented the post-test distribution set for May 2020, eliminating change analysis and relationship quality/academic outcome link exploration.

Recommendations

Program Quality

The 2019-20 academic year will go down in history. It was marked by an abbreviated school year which resulted in fewer CLASS and ECERS-3 observations. In total, a fraction of the number of classroom observations were conducted before in-person programming was closed and digital learning commenced. At this time, we are unable to make worthy recommendations with regards to programming, as it is difficult to make generalizations for community-wide programming with a fraction of observations completed.

However it is anticipated that the community will continue to provide professional learning opportunities for classroom teachers focused on enhancing the quality of interactions between adults and children in the classroom. Previously, we recommended placing an emphasis on providing teachers with support across the Instructional Support domain of the CLASS, specifically on the constructs of concept development and language modeling. We believe this emphasis should be maintained until additional data indicates the need has been fulfilled. Although an emphasis of professional learning has been placed on teacher-child interactions, we were unable to find a distinguishable link between professional development for teachers and classroom quality outcomes. Future RECAP collaborations should prioritize the collection of teacher demographic information, professional development selection and participation in order to conduct analyses that would offer insight into the role, if any, professional learning plays in observed classroom quality in pre-k programming across Rochester.

Additionally, with the transition to digital learning at the end of the 2019-20 year and into the 2020-21 academic year it will be important to gather insights from pre-k teachers that were able to pivot and make what has seemed to be a seamless transition to digital learning. More specifically we would like to know more about what role, if any, professional development has played in their transition to digital teaching in pre-k programming. Included with professional development, we would also like to know more about their self-efficacy and how making the transition to digital learning may have played a role in how efficacious they (the pre-k) teachers feel about digital instruction in the 21st century.

Student Outcomes

A critical component of kindergarten readiness and making a successful transition to school age programming over the past couple of years has seen a focus on dosage of programming. It is quite clear that students that attend both EPK and UPK programming are more ready to make a successful transition to kindergarten compared to their UPK only attending peers. An important component of analyzing this process is the collection of COR+ data at both the EPK and UPK years. As has been discussed in previous RECAP Annual Reports, the most vital criteria to evaluating dosage of programming is that classroom teachers complete and enter COR+ anecdotes and scores for their children. We continue to encourage

teachers to complete sufficient (>=95%) items of the COR+ so we as a community are better able to gauge programming outcomes for kids.

Digital Learning

The 2019-20 academic was a unique one. With the onset of the COVID-19 pandemic that swept the world, digital engagement and learning become a priority of early childhood education programming in Rochester. With in-person programming closed across the state effective in March, pre-k children spent a third of the academic year learning from home. It became evident as the digital learning portion of the academic year moved forward that a digital divide existed within our community. A majority of RCSD students had fewer than 18 days of a possible 44 days of contact/engagement with their classroom teacher. Conversely, CBO student engagement by daily contact was much higher, where 42% of CBO students had engagement greater than 80% of the time. We believe that it is crucial to assess how, and to what extent, digital learning affected student cognitive and social-emotional development. At this time, because of a lack of student assessments, we are unable to determine what student outcomes might be. We think it likely that there is significant regression in the number of UPK students ready for kindergarten.

At time of this writing, it is our understanding that pre-k programming in Rochester will be modified for children to ensure their safety within the school building. The 2020-21 academic began virtually and continues to be so. Conversations within the Governor's office have suggested that a hybrid option of programming, as well as in-person programming may be offered by the Rochester community beginning February 1, 2021. Our recommendation for the digital portion of the academic year is to gather feedback from classroom teachers about their experiences about virtual teaching in pre-k programming. More specifically, we would like to gather more information from classroom teachers about their preparation for transitioning to all digital programming with a focus on how professional learning opportunities supported their transition to digital instruction. If and when programming in Rochester returns to a more traditional approach, our recommendation is for pre-k teachers to collect COR+ and T-CRS data during the remaining portion of the academic year. Initial assessment data collected on pre-k children allow the community to review any potential cognitive or social-emotional losses experienced by children. We note that a large majority of 2019-20 EPK children are currently enrolled in UPK programming. Their outcomes may be able to provide the community with a glimpse into potential losses or maintenance with age appropriate cognitive functioning as measured by the Brigance, as well as social-emotional outcomes as measured by the T-CRS. Many questions have been raised as to the effectiveness of digital learning and its relationship with student outcomes. One way to address these questions is for classroom teachers to collect student data that can be used to track and analyze how part-time in-person programming, combined with digital learning, affects cognitive development of students before they transition to kindergarten.

Limitations

There are a several important limitations in the 2019-20 RECAP Annual Report that should be understood. First, this academic year is a unique one, in which school districts were instructed to transition to home-based learning due to shelter in place building closures. This is not a limitation as so much as the early school building closures left many questions unanswered. Due to the school closures, a fraction of the typical RECAP CLASS and ECERS-3 observations were completed. In total, 26 of 79 scheduled EPK CLASS observations were completed (33%). Similarly, 32 of 103 scheduled UPK CLASS observations were completed (31%). With the very high CLASS scores reported this year compared to the previous two years, it is difficult to suggest that with all the observations the CLASS overall scores would have remained equal to 6.0. Unlike the CLASS, the ECERS-3 outcomes were comparable to prior years, although the number of observations was significantly lower. In total, 31 out of 77 scheduled EPK ECERS-3 observations were completed (40%). The same can be said about UPK ECERS-3 observations in which 42 were completed out of a scheduled 107 (39%). Much like the CLASS outcomes, it is difficult to suggest that ECERS-3 outcomes would have remained consistently around the 5.3–5.5 point range.

Second, teachers were not able to collect as much student outcome data as has been completed in previous years. With the school closures in mid-March and a transition to home-based digital instruction, only fall and winter COR Advantage data was collected. Teachers were unable to collect COR+ data once the transition to digital learning was made in March, 2016. Unfortunately, additional year-end school readiness analyses were not completed because of the lack of data collection. Similarly, only fall T-CRS data were collected, not allowing RECAP to further analyze student social-emotional growth over the course of the academic year.

Third, the students only received a partial program, with major portions of the curriculum being abruptly eliminated. Results under such conditions are unlikely to reliably generalize to other situations.

Finally, it is evident that a digital divide exists in our community. A majority of students in the community did not receive adequate digital learning opportunities. Yet, it is difficult to understand the impact of digital learning. More than half of the RCSD students (53%) received less than 18 days of engagement with their classroom teacher. Contrarily, 42% of CBO student received greater than 80% engagement over the same time frame. At this time we are unable to ascertain whether any amount of days contributed to cognitive development the children would have otherwise seen if they were in regular programming for the entirety of the 2019-20 academic year.

At the same time CBO teachers reported a significant amount of contacts and engagement during the digital learning portion of the academic year. UPK students in CBO programming averaged over 73 contacts during the digital learning portion of the academic year. However, once again we are unable to make any statements regarding the impact between student engagement during the digital learning portion of the school year and academic progress. As with RCSD student cognitive growth, at this time we are

unable to decipher whether any amount of digital engagement led to any cognitive growth or stability because student outcome data was unable to be collected by either school based or CBO based EPK and UPK programming.

Presentations

Embt, K., Van Wagner, G., & Murray, L. (August 2019). *Rochester City School District Partners Forum: RECAP 2018-2019 CLASS and ECERS-3 Classroom Observation Outcomes and Trends.*

Embt, K., Van Wagner, G., & Murray, L. (February 2020). *Presentation to Partner's Forum COMET Attendance: Reviewing Reports and Editing Entries*.

Embt, K. (May 2020). *COMET Distance Learning: Recording and Reporting*.

Infurna, C. J. (November 2019). *RECAP Annual Report Presentation*.

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