Abstract:

In spring 2017, the School Board approved a $5.6 million investment in the districtwide implementation of a new K-5 English Language Arts (ELA) curriculum, Center for the Collaborative Classroom (CCC). Research & Evaluation (R&E) has partnered with Curriculum, Assessment & Instruction (CAI) in a three-year review of the curriculum. These findings are from 2018-19, which is Year 2 of the study.

Similar to the data collection and analysis strategy in Year 1, we surveyed all classroom teachers of elementary grades (response rate: 25%), surveyed principals and teacher leaders (response rate: 40%), conducted site visits at four schools (Kimball Elementary, Cedar Park Elementary, Roxhill Elementary, Bailey Gatzert Elementary), and conducted student-level data analyses.
Key findings from Year 2 implementation of CCC include:

- **School leaders and teachers are more fully implementing the CCC materials in Year 2, but more supports are needed to bolster early literacy.** Survey data show districtwide increases in teachers’ reported use of CCC in 2018-19, with particularly large increases for the component that supports foundational skills in grades K-2. However, survey and site visit findings show that teachers need additional explicit support for high leverage teaching practices in early literacy, including professional development, resources, and guidance on tiered supports for all students.

- **Teachers appreciate the culturally responsive instructional practices within CCC but believe texts to be lacking in cultural relevance.** In site visits, teachers say CCC helps them to build positive classroom cultures that support culturally responsive pedagogy. On the survey and in site visits, teachers press the district to invest in culturally relevant alternative texts – strengths-based, written by authors of color, and depicting culturally diverse topics and characters.

- **Principals and teachers want a coherent district strategy for literacy assessment, scheduling.** In both surveys and focus groups, teachers report that they are not optimizing literacy assessment data due to varied understandings of the purpose of the assessments, as well as lack of time, professional development and technical assistance. Additionally, school leaders would like specific guidance on how to create master schedules that optimize literacy time.

- **Teachers, teacher leaders and principals increasingly believe that CCC implementation will yield positive student outcomes; elementary SBA data show mixed results.** Survey trend data indicate increased optimism that implementing CCC “as intended” will help to close opportunity gaps for students of color furthest from educational justice, ELL students. Combined 2018-19 proficiency rates for grades 3-5 show a small increase for African American males, but no gains for students of color furthest from educational justice. Results disaggregated by grade level show proficiency declines in Grade 3, increases in Grades 4 and 5.

In response to these findings, the district has: Planned for targeted professional development based on teacher feedback; provided additional resources for foundational skills; released walkthrough tools to support teacher practice; planned for alternative culturally relevant texts, and prioritized 3rd grade reading in Seattle Excellence for students of color furthest from educational justice and African American males.
Elementary ELA Curriculum

Findings from Year 2 of a Three-Year Study of the K-5 ELA Curriculum, Center for the Collaborative Classroom ("CCC")

Seattle Public Schools
Research & Evaluation Department
October 2019
Elementary ELA Curriculum
(Center for the Collaborative Classroom or “CCC”)

Background

In spring 2017, the School Board approved a $5.6 million investment in districtwide implementation of a new K-5 English Language Arts (ELA) curriculum, Center for the Collaborative Classroom (CCC).

Research & Evaluation (R&E) is partnering with Curriculum, Assessment & Instruction (CAI) in a three-year review of the curriculum. These findings are from 2018-19, which is Year 2 of the study.
Research Questions

• What can we learn from the implementation of CCC that informs both this and future district curriculum adoptions?

• To what extent is the CCC curriculum adoption causing educators to shift practices in service of student achievement and eliminating opportunity gaps?
Theory of Action

If we provide all K-5 students access to high quality Tier 1 literacy instruction that is grounded in the district’s Balanced Literacy Framework...  
...And provide clear expectations and supports for implementation at all levels of our system...  
Then educators and leaders will shift practices in service of student achievement and eliminating opportunity gaps...  
...So that all students demonstrate high levels of ELA achievement.

Center for the Collaborative Classroom (CCC)
- Pedagogy and Standards-Aligned Curriculum Materials
- Professional Development
- Assessments

Excellence and Equity

District
- Clear expectations for implementation
- Continuous improvement approach to curriculum adoption

District leaders learn from adoption process, can link ELA curriculum to system-wide processes and supports

School
- Leadership networks and dedicated PD for school leaders

School leaders are empowered as instructional leaders, positioning themselves as learners and helping teachers to develop their practice

Classroom
- Ongoing support and PD for teachers through Collaborative Literacy Leaders, early release PD
- Additional coaching support through Satterberg Foundation

Teachers and teacher leaders shift to interdependent, culturally responsive pedagogical practices
Findings Summary

This presentation highlights findings from Year 2. We are currently collecting data for Year 3.

Year 1 (2018-19)
Evidence that teachers are working hard to implement despite previous “schema.” No “implementation dip” in test scores

Year 2 (2019-20)
- Improved implementation of CCC components and instructional strategies
- Implementation supports needed for enhancing cultural relevance of texts, strengthening foundational skills
- Some achievement gains in grades 4/5, but slight declines in 3rd grade

Year 3 (2020-21)
Planned alignment to strategic plan 3rd grade goal. Study will examine implementation and student achievement gains, in particular for Students of Color Furthest from Educational Justice and African American Males
Y2 Data Collection and Analysis

**Surveys**

**Teachers:**
February 2019, 25% response rate, n=445

**Principals and teacher leaders:**
June 2019
40% response rate, n=110

**Site visits**

Kimball Elementary
Cedar Park Elementary
Roxhill Elementary
Bailey Gatzert Elementary

**Student-level data analyses**

Smarter Balanced Assessments (SBA)
Measures of Academic Progress (MAP) (forthcoming)
Survey findings represent self-reported findings from teachers, teacher leaders, and school leaders who responded to surveys. Response rate was approximately 25% for teachers, and 40% for principals/CLLs.

Site visit findings may not be representative of the experiences of all teachers and leaders.
Schools were selected based on:
• Reported levels of implementation (as reported on 2019 Teacher Survey)
• Demographics of student body (to ensure representativeness of the district)
• Continuity from 2017-18 study (for one of the four schools)

Data analyses are still in progress and are descriptive only; they do not present causal claims about curriculum effectiveness.
Future analyses may focus on:
• Further SBA analysis, including student growth, claim level analyses
• In-depth looks at progress monitoring data, particularly for grades 2, 3
• Further disaggregation by ELL status
Improving Implementation

Feedback from teachers and leaders focused on the following:
• Frequency of material use
• Foundational literacy skills*
• Gap closing strategies
• Culturally relevant texts
• Culturally responsive teaching moves
• Assessments
• Scheduling
• Perceptions of student outcomes

*Mastery of phonic, phonemic awareness, and decodable words
Implementation Findings

Finding 1: In Year 2, school leaders and teachers are more fully implementing the CCC materials.

In the 2019 teacher survey, 81% of all teacher respondents (n=445) reported that they are expected to teach CCC “as intended” in their classroom. This is a 13-point increase over last year.

Averaged across all schools, 71% of teacher respondents are teaching the curriculum “as intended.” This is a 12-point increase over last year.

“Taught as Intended” Definition

1. Frequency of Use
   *Teachers use the materials regularly, as per the CCC Implementation Guide*

2. School-wide Expectations
   *School leaders expect teachers to fully implement CCC in their school*
Implementation Findings

Finding 2: Implementation fidelity varies by curriculum component. The largest gains in Year 2 were found in Being a Reader, the CCC component that focuses on foundational skills in grades K-2. Low levels of implementation of vocabulary instruction persist in Year 2.

2019 Teacher Survey – Percentage “taught as intended” by curriculum component (n=445)

<table>
<thead>
<tr>
<th>Curriculum Component</th>
<th>2018-19</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEING A READER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole Group Shared Reading/Word Study</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Small Group Reading</td>
<td>45%</td>
<td>63%</td>
</tr>
<tr>
<td><strong>MAKING MEANING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole Group Instruction</td>
<td>74%</td>
<td>72%</td>
</tr>
<tr>
<td>Individualized Daily Reading (IDR)</td>
<td>79%</td>
<td>77%</td>
</tr>
<tr>
<td><strong>BEING A WRITER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a Writer</td>
<td>71%</td>
<td></td>
</tr>
</tbody>
</table>

Note: 2017-18 data not displayed as survey questions were not consistent.
Implementation Findings

Finding 3: Despite increases in usage for Being a Reader, some teachers are still unaccustomed to the explicit and systematic foundational skill instruction in CCC, which literacy research states is needed for mastery.

International Literacy Association (2019): “Although phonics can be taught in different ways, research supports instruction that is explicit and systematic. Explicit means that the initial introduction of a letter–sound relationship, or phonics skill, is directly stated to students...Being systematic means that we follow a continuum from easy to more complex skills, slowly introducing each new skill.”

Comments on the 2019 Teacher Survey and in focus groups at schools suggest that teachers may be holding on to “schema” from previously implemented literacy tools or strategies.

“Students do not have enough practice reading/decoding the sounds that they have learned in the BaR texts. I have to supplement the curriculum with books the students can actually access and practice what they’ve just been taught.”

“There is a real lack of a cohesive phonics program which is needed in the primary grades.”

“We stuck with Words Their Way because we wanted more differentiation with our kids.”

International Literacy Association (2019). “Meeting the Challenges of Early Literacy Phonics Instruction.”
Implementation Findings

Finding 4: Teachers and leaders want support for high leverage teaching practices in literacy, particularly in early literacy.

In site visits and in the 2019 Teacher Survey, teachers and leaders named desired supports, particularly for building foundational skills in early literacy:

**More professional development**
Curriculum trainings and opportunities to observe/learn from peers

**Resources**
For additional Being a Reader small group sets

**Guidance**
On adapting the curriculum for specific students and classroom environments, using Tier 2 supports (e.g. SIPPS, LLI)

“It was so huge to get to go see somebody who understands it or has done it before and done it well. I learned a lot in just that one time I went [to observe my peer’s classroom] and so being able to do that regularly [would be helpful].” – Teacher

“We do not have enough small group sets to effectively teach all students at their identified level without sharing within our grade level. And when we all teach literacy at the same time, it's not possible to share these sets. – Teacher

“What guidance should we give to teachers when they do that whole class assessment or realize through other formative means that some kids haven’t fully grasped the concept. Now what?” – School Leader
Finding 5: Teachers do not believe the CCC texts to be sufficiently culturally relevant.

On the teacher survey, 54% of respondents agreed or strongly agreed with the statement: “The CCC textual materials are culturally and ethnically relevant.” (n=445)

In focus groups, teachers said they would like the district to invest in alternative texts that are culturally relevant – strengths-based, written by authors of color, and depicting culturally diverse topics and characters.

“The third grade reading curriculum has books reflecting diversity almost entirely written by white people.” – Teacher

Some of our books have some African American characters, which is great, but there's really no other culture and no different gender norms or different kinds of families.” – Teacher
Implementation Findings

Finding 6: Teachers appreciate the culturally responsive instructional practices within the curriculum, believing they help to make classrooms more inclusive.

In site visits, teachers said that CCC helped them to build:

Classroom culture that supports group interdependence
Deep and meaningful peer-to-peer learning in a student-centered classroom.

Student voice and agency
Participation from previously quiet students, including English Learners, students of color, and shy students

Classroom rituals that support a culture of learning
Techniques (respectfully disagreeing, building on others’ thinking, etc.) seen in the classroom, as well as on the playground, in other subjects

“It's given a great framework for kids to be able to talk to each other, and with each other and add on, and take me out of the equation as the person that's driving the conversation.” – Teacher

“Wait time has been crucial, as kids have to really process what the question is asking. Not just ELL students but all students are like, well what are you really trying to get at with this question? " [ELL students] are more likely to have something to say to their neighbor.” – Teacher

“I think of discussion prompts, how do we add on to our partners thinking? How do we listen to one another? Those are gap closing strategies that are also going to impact students' success in other areas.” – Teacher
Implementation Findings

Finding 7: Teachers believe some instructional strategies within CCC to be critically important in closing achievement gaps. Most, however, do not see embedded assessments as a gap closing strategy.

Percent of respondents who believe that the following elements are “extremely” or “very” important in eliminating gaps in literacy achievement for students of color furthest from educational justice:

- Opportunities to construct knowledge collaboratively with peers: 81%
- Embedded social emotional learning: 75%
- Access to a common curriculum across grades, schools: 73%
- Small group instruction: 72%
- Vocabulary instruction: 61%
- Open-ended questions as written in Making Meaning: 58%
- Embedded assessments (paper or ClassView): 29%
Finding 8: Teachers do not understand how various literacy assessments (both embedded and external) work together to support student learning. Many teachers also think students are overly assessed.

Teachers report using numerous assessments, including CCC embedded assessments, F&P, and MAP to guide literacy instruction. The use cases for these assessments – for example, referring students to interventions, assessing students’ independent reading level, and assigning students to small groups – varies by building, and often even by classroom.

On the 2019 Teacher Survey, teachers say they need the following to make good use of literacy assessment data:
- Dedicated time (60%)
- Professional development (35%)
- Guidance for PLCs (27%)
- Technical Assistance (15%)

“We’ve got all of these standardized tests that we are required to take. That is nowhere in CCC. So, three to six times a year, they sit down and they have to submit themselves to one to three hours of stuff that is nowhere in their curriculum ever.” – Teacher

“I can’t stress enough how administering the F&P assessments takes too much time that teachers could be using for instruction. If SPS feels this assessment is valuable, then classroom teachers need support from others and release time so students aren’t losing instruction.” – Teacher
Implementation Findings

Finding 9: It is difficult for schools to block out time for literacy, and many schools report fewer than 120 minutes/day allotted for literacy instruction.

In the principal/CLL survey, many respondents report that they allot less than the recommended 120 minutes per day for literacy, with 29% of respondents blocking out less than 90 minutes for literacy in grades K-2.

In site visits, respondents note how scheduling the literacy block makes it difficult to address other school needs. Principals in particular would like guidance from the district about scheduling for literacy success.

“*What I need is for the district to streamline some things before they come to me if you are wanting me to really implement the work. When you send too much, it sends me the message that you don’t expect for me to really follow what you want.*” – Principal

“The district needs to think about how we can realistically teach science and social studies and math and have time for behavior, social emotional learning.” – Teacher
Finding 1: Principals and CLLs increasingly agree that CCC implementation will yield positive student outcomes. Large gains were seen in the perceptions related to closing opportunity gaps.

Principal/CLL Survey: I believe that implementing CCC “as intended” will help to...

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve engagement and enthusiasm for literacy learning.</td>
<td>83%</td>
<td>88%</td>
</tr>
<tr>
<td>Help students feel safe and welcomed in school</td>
<td>86%</td>
<td>85%</td>
</tr>
<tr>
<td>Help students make stronger gains in literacy proficiency</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>Meet the needs of students with disabilities</td>
<td>49%</td>
<td>53%</td>
</tr>
<tr>
<td>Meet the needs of Highly Capable students</td>
<td>47%</td>
<td>48%</td>
</tr>
<tr>
<td>Close opportunity gaps for students of color</td>
<td>60%</td>
<td>76%</td>
</tr>
<tr>
<td>Close opportunity gaps for English Language Learners</td>
<td>58%</td>
<td>70%</td>
</tr>
<tr>
<td>Allow my school to meet the CSIP targets for early literacy</td>
<td>62%</td>
<td>70%</td>
</tr>
</tbody>
</table>
Implementation Findings

Comments from principals and CLLs linking CCC implementation to student outcomes (from 2019 Principal/CLL Survey)

“This year, we have really dug into the curriculum and we have seen the results! Teachers are buying into the curriculum and seeing the rigor.”

“I as CLL have been privileged to do a lot of learning walks this year and have been so inspired to see students of all ages, in all different classrooms, practicing the same learning behaviors and routines. It really will be a dream for us continually as students move classrooms or even schools.”

“After vertically aligning in PLCs and using the assessments in the curriculum and some that we created using the curriculum our school climate survey increased in all areas for the first time.”

“In addition, using the BAW with intermediate students has already shown a positive outcome in our standardized tests!”

“BaR for my kinders has been AMAZING! The small group sets are truly amazing and I'm really seeing some great learning and growth.”

“I have a grade level where only one teacher is implementing with integrity- her students outperformed the other two classrooms by 10-14 points giving us more evidence that this program works for students.”

“Our most successful teachers attributed implementation of CCC with student success.”
Finding 2: Teacher perceptions of student outcomes are more conservative than those of principals and CLLs, and show changes from last year.

<table>
<thead>
<tr>
<th>Teacher Survey: I believe that implementing CCC “as intended” will help to...</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve engagement and enthusiasm for literacy learning</td>
<td>73%</td>
<td>55%</td>
</tr>
<tr>
<td>Help students make stronger gains in literacy proficiency</td>
<td>48%</td>
<td>56%</td>
</tr>
<tr>
<td>Meet the needs of students with disabilities</td>
<td>*</td>
<td>38%</td>
</tr>
<tr>
<td>Close opportunity gaps for students of color</td>
<td>*</td>
<td>50%</td>
</tr>
<tr>
<td>Close opportunity gaps for English Language Learners</td>
<td>*</td>
<td>51%</td>
</tr>
</tbody>
</table>

* Question not asked on 2018 teacher survey
Implementation Findings

Comments from teachers about student outcomes

“CCC has given [students] a common instructional experience and common language to talk about what they think and what they're reading. And that in and of itself has created not just a strong classroom community, but it's made the content accessible.” (Site visit focus group)

“I can see [co-constructed learning] really closing the gap because they're going to be working together and learning from each other.” (Site visit focus group)

“I have been in the district for many years, and the CCC curriculum has been my most effective tool for improving students' literacy skills, so far.” (Survey)

“Having to read the same stories multiple times leaves my students incredibly disengaged.” (Survey)

“It's great to have the resources, but I have noticed that gaps still exist since the content is rather difficult to access especially for ELL and SPED students.” (Survey)

“CCC for intermediate grades does NOT meet the needs of students who are well below grade level. If we just follow the script and don't do anything especially target struggling readers and writers, they will just fall FURTHER behind.” (Survey)
Student Outcomes Findings

Finding 3: Combined 2018-19 SBA proficiency rates for grades 3-5 show a 4-point increase from last year for African American males, but no gains for students of color furthest from educational justice.

Smarter Balanced ELA (Grades 3-5 Combined)

- 2016-17: 64% (n= 13311)
- 2017-18: 67% (n= 4226)
- 2018-19: 68% (n= 903)

Students of Color Furthest From Educational Justice – African and African American, Latinx, Pacific Islander, Southeast Asian, and Native American Students
Student Outcomes Findings

Finding 4: SBA results disaggregated by grade level show proficiency declines in Grade 3 (the Seattle Excellence priority goal), but increases in Grades 4 and 5.

Elementary ELA Curriculum Study

Students of Color Furthest From Educational Justice – African and African American, Latinx, Pacific Islander, Southeast Asian, and Native American Students
Student Outcomes Findings

Finding 5: Achievement results show large differences in SBA proficiency rates for students receiving English Language Learner (ELL) services versus those who do not receive those services.

Smarter Balanced ELA (Percent Meeting Standard, Grades 3-5)

- **African American Males**
  - African American Males (Not ELL)
  - African American Males (ELL)

- **Students of Color FFEJ**
  - Students of Color FFEJ (Not ELL)
  - Students of Color FFEJ (ELL)

- **All Students**
  - Not English Learners
  - English Learners

Students of Color FFEJ = Students of Color Furthest From Educational Justice: African and African American, Latinx, Pacific Islander, Southeast Asian, and Native American Students.
Finding 6: Achievement results show large differences in SBA proficiency rates for students receiving special education (SpEd) services versus those who do not receive those services.

**Smarter Balanced ELA (Percent Meeting Standard, Grades 3-5)**

**African American Males**
- African American Males (Not Receiving Special Education Services)
- African American Males (Receiving Special Education Services)

**Students of Color FFEJ**
- Students of Color FFEJ (Not Receiving SpEd Services)
- Students of Color FFEJ (Receiving SpEd Services)

**All Students**
- Students NOT Receiving Special Education Services
- Students Receiving Special Education Services

Students of Color FFEJ = Students of Color Furthest From Educational Justice: African and African American, Latinx, Pacific Islander, Southeast Asian, and Native American Students
Student Outcomes Findings

Finding 6: When looking at student growth, we see increases in growth from prior years for African American males and students of color furthest from educational justice. However, growth for these students this year is still lower than more than half of academic peers statewide.

ELA Growth
(Median Student Growth Percentile, Grades 4-5 Combined)

How to read Student Growth Percentiles Data

Student Growth Percentiles (SGPs) represent students’ growth relative to the growth of other students who had similar scores in prior years. To read the slide, one would say, “In Seattle Public Schools, the median African American male student showed growth that was higher than 46% of their academic peers throughout the state.”

For more information on SGPs, visit the WA State website at https://www.k12.wa.us/data-reporting/reporting/student-growth-percentiles-sgp

Students of Color FFEJ = Students of Color Furthest From Educational Justice: African and African American, Latinx, Pacific Islander, Southeast Asian, and Native American Students
Next Steps and District Actions

Research Finding: Both the qualitative data and the 3rd grade state test data supports the need for focused support for early literacy instruction.

District Response:

→ **Targeted professional development** for 2019-20 that specifically addresses “schema” and resources within Being a Reader, foundational skills in grade 3, and best practices in early literacy for building leaders

→ **Resources for additional BAR sets** – Set 5 for grade 2; sets 10-13 for grade 3

→ **Phasing in supports for K-2 “accelerator” strategies** (in particular Systematic Instruction in Phonological Awareness, Phonics, and Sight Words or “SIPPS” for students who need additional phonic and phonemic awareness)
Next Steps and District Actions

Research Finding: Teachers and leaders want more opportunities and guidance on observing instructional practice with CCC.

District Response:

→ Walkthrough tools distributed to building leaders and CLLs. These tools provide concrete “look-fors” of best practices related to instruction within:

  - **Being a Reader** (grades K-3)
  - **Making Meaning** (grades K-5)

Making Meaning Walkthrough Tool Excerpt

<table>
<thead>
<tr>
<th>Incorporating the Teaching Moves</th>
<th>Observed (Yes, No, N/A)</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the lesson, the teacher:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses facilitation techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Turning and Looking at the Speaker; Asking Open-Ended Questions and Using Wait-Time; Asking Facilitative Questions; Avoiding Repeating/Paraphrasing; Responding Neutrally with Interest)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitors pacing of the steps within the lesson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotes interdependent norms and routines for cooperative learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Turn to Your Partner (K-5); Think, Pair, Share (K-5); Think, Pair, Write (3-5); Heads Together (4-5); Group Brainstorming (4-5))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listens to partner conversations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Next Steps and District Actions

Research Finding: CCC texts are not sufficiently culturally relevant

District Response:
→ District will work this year to identify culturally relevant grade level texts suitable for CCC units and alternate text-driven lessons for K-5.

Research Finding: Scheduling literacy blocks is challenging

District Response:
→ Model schedules have been posted on Schoology and introduced at principal trainings for school leaders and CLLs to review and adapt to fit specific school contexts.
Next Steps and District Actions

Research Finding: Despite investments in instructional materials aligned to comprehensive literacy principles, we still have low proficiency rates in literacy for students of color furthest from educational justice, and in particular for African American male students.

District Response:

→ **SPS Comprehensive Literacy Framework** created to support equitable access to high quality, research-based instructional practices in literacy that are known to accelerate student learning.

→ **Seattle Excellence** focuses on 3rd grade reading proficiency for students of color furthest from educational justice and African American males.
For questions or more information about this study, please email: 
research@seattleschools.org

More information about the SPS Research & Evaluation Department can be found at: 
https://www.seattleschools.org/departments/rea