

PREPARING FOR SUCCESS

An Evaluation of SubSchool Professional Development
for Substitute Teachers in Multnomah Education Service District

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Submitted to

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RMC Research was contracted by Multnomah Education Service District to conduct an evaluation of SubSchool’s SubSchool professional development pilot for substitute teachers.

The SubSchool professional development is a virtual course and collaboration platform designed to improve the quality of substitute teaching and reduce substitute turnover. Multnomah Education Service District (MESD) collaborated with Northwest Regional Educational Service District (NWRESD), Portland Public Schools (PPS), and RMC Research to recruit 50 substitute teachers across Clatsop, Columbia, Tillamook, Washington, and Multnomah counties to participate in a pilot rollout of the SubSchool professional development in summer 2022. Evaluation activities include surveys (pre- and post- professional development) and focus groups to assess how the SubSchool professional development affects substitute teachers’ preparedness in terms of student engagement, instructional strategies, classroom management and culturally responsive teaching; their sense of belonging in education, and feedback on the SubSchool professional development in terms of organization, usefulness, timeliness, and overall quality. RMC Research also analyzed survey data collected directly from SubSchool at the end of each course from the 43 participants who completed the pilot. Evaluation findings will be used to determine whether to expand this professional development during the 2023–2024 school year to reach more substitute teachers.

Recruitment and Data Collection

In fall 2022, a flyer and interest form were sent to all substitute teachers who are contracted through NWRESD and PPS. NWRESD substitute teachers were offered a \$425 stipend to participate in the pilot, and PPS substitute teachers were offered 2 paid days of extended pay. Pilot activities included:

- Completing the presurvey (10-minute time commitment).
- Activating a SubSchool account and completing 10 self-paced courses by October 22 (14-hour time commitment).
- Substituting in PPS a minimum of 6 full day equivalents before October 22.
- Completing the postsurvey at the conclusion of the pilot (10-minute time commitment).
- Participating in a 1.5-hour focus group to provide feedback on the course. (This activity was optional; NWRESD participants were paid an additional \$50 and PPS participants were paid 1.5 hours of extended pay for this activity.)

The pilot began in August/September and all activities were to be completed by October 22, 2022. All those interested who completed the presurvey and set up a SubSchool account from NWRESD were accepted into the pilot. PPS invited 36 substitute teachers from the list of 200 who were interested based on demographics to ensure diverse representation of years’ experience and type of teaching credential. As Exhibit 1 shows, 43 substitute teachers fully completed the SubSchool pilot. Findings from this report focus on those 43 substitute teachers.

Exhibit 1 Recruitment and Data Collection

	Number of Substitute Teachers					
	Completed Interest Form	Completed Presurvey	Completed SubSchool	Completed Postsurvey	Completed SubSchool Survey	Attended Focus Group
NWRES D	21	27	12	12	12	9
PPS	200	36	31	31	31	18
Total	221	63	43	43	43	27

Note. More NWRES D substitute filled out the presurvey than the interest form because both forms were provided at the same time, and some filled the presurvey out first and never went on to complete an interest form.

Analysis

To examine differences between before and after participating in the professional development, pre and postsurvey responses were compared via paired-samples *t*-tests. Pre and postsurvey responses were also analyzed by 2 subgroups:

- **Years of experience:** Little experience (i.e., under 3 years, $n = 30$) and A lot of experience (i.e., more than 3 years, $n = 13$).
- **Teaching credential type:** Oregon State Teaching Credential ($n = 20$) and Emergency Restricted Substitute License ($n = 20$).

Data was not analyzed by grade served because there was not enough differentiation between grade levels groups: (Grades K–5, $n = 31$; Grades 6–8, $n = 25$; Grades 9–12, $n = 23$). For detailed analyses methods see Appendix A.

EXECUTIVE SUMMARY

Participants in the SubSchool pilot reported positive, significant growth from the pre- to postsurvey on items relating to all 4 preparedness domains: student engagement, instructional strategies, classroom management, and culturally responsive teaching. **Participants reported significant growth in their preparedness to:**

- Provide appropriate challenges for high achieving students.
- Differentiate instructional strategies to meet students' varying needs.
- Control disruptive behavior.
- Get students to follow classroom rules.
- Calm a student who is disruptive and noisy.
- Establish a classroom management system that works with all students.
- Create a warm, supporting, safe, and secure classroom environment for culturally diverse students.
- Communicate with culturally diverse students.

Participant survey responses also showed **significant growth over time in confidence to implement instructional strategies and skills with culturally responsive teaching.**

Participants with more experience (i.e., 3 or more years of substitute teaching experience) were the drivers of the significant increases from pre- to post- in terms of culturally responsive teaching skills.

Focus groups conducted with substitutes who had no education background and extensive education background revealed **similar needs regardless of experience levels** and included (a) training/support with classroom management and behavior issues, (b) more training on platforms and curriculum used in the schools/districts, and (c) opportunities to collaborate either with other substitute teachers or other teachers. In terms of substitute teachers' feedback on the SubSchool professional development, **participants with less experience in education found the courses more valuable than those with more education experience.** New substitutes felt the courses exceeded their expectations, were better than training received by the districts they serve, provided applicable advice that they used daily in the classroom, and reported having a better relationship with students because of the trauma course. Substitutes who had more background education experience felt the courses were redundant, basic, overly generalized, and idealistic. There were a few seasoned substitutes who felt as if the content was review but still appreciated the refresher, however most of the more experienced substitutes felt that there was little growth for them as a result of participating in the pilot. These seasoned substitutes did share, however, that the professional development would have been useful to them if they had no education experience or were brand new to substitute teaching.

Course-specific feedback collected through SubSchool showed significantly increased levels of confidence about being a substitute teacher in a school community and classroom, managing a classroom, implementing instruction, and employing trauma-informed teaching. Most respondents used their open-ended survey responses to provide positive feedback and encourage SubSchool training for other new substitute teachers.

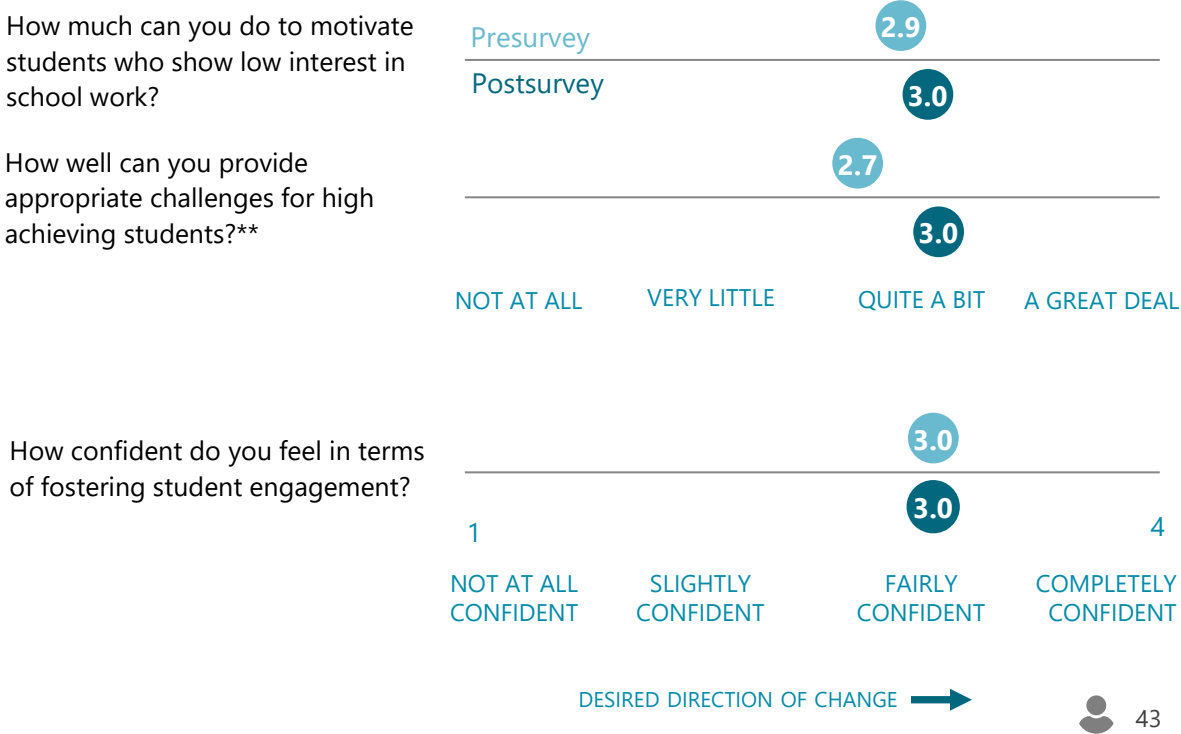
PREPAREDNESS

Pilot participants were asked a variety of questions on both the pre- and postsurvey regarding how prepared they feel to foster student engagement, implement instructional strategies, effectively manage the classroom, and implement culturally responsive teaching skills.

Student Engagement

Exhibit 2 Student Engagement

In general participants reported high preparedness ratings at both pre and post. Participants showed significant increases in their ability to provide appropriate challenges for high achieving students, nonsignificant increases in their ability to motivate students who show low interest in schoolwork, and no change in their overall confidence in fostering student engagement from pre- to post-professional development. There were no differences in the results when analyzed by years of experience or credential type.



Note. Answers to each item ranged from 1 (not at all/not at all confident) to 4 (a great deal/completely confident). Frequencies for each item are located in Appendix A, Exhibit A.1.
 **Differences deemed significant: $p < .01$ for pre-post comparisons.

Instructional Strategies

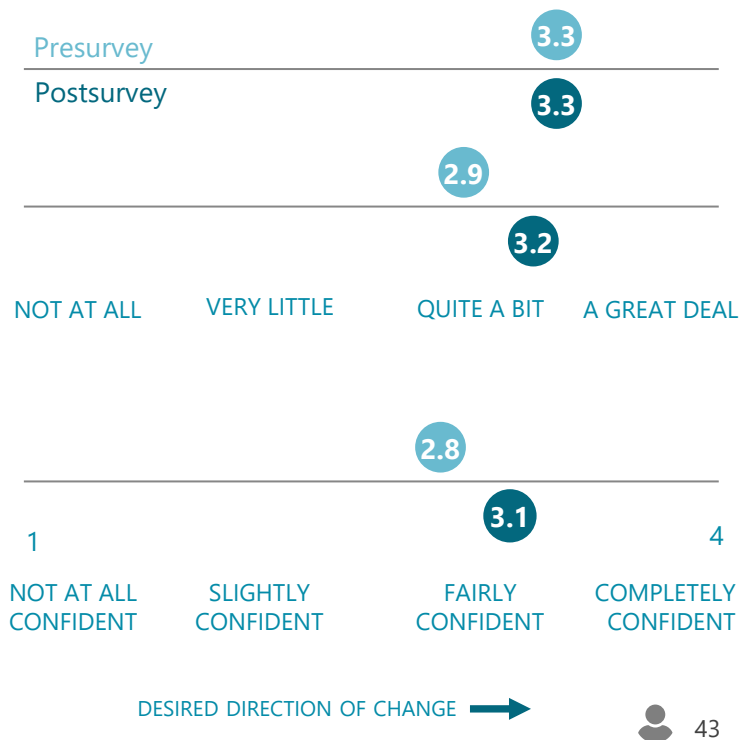
Exhibit 3 Instructional Strategies

In general participants reported high preparedness ratings at both pre and post. Participants showed significant increases in how well they can differentiate instructional strategies to meet students' varying needs and their overall confidence in implementing instructional strategies from pre- to post- professional development. There was no change from pre to post in terms of how much they can provide alternative explanations when students are confused. There were no differences in the results when analyzed by years of experience or credential type.

To what extent can you provide an alternative explanation or example when students are confused?

How well can you differentiate instructional strategies to meet students' varying needs in your classroom?***

How confident do you feel in terms of implementing instructional strategies?*



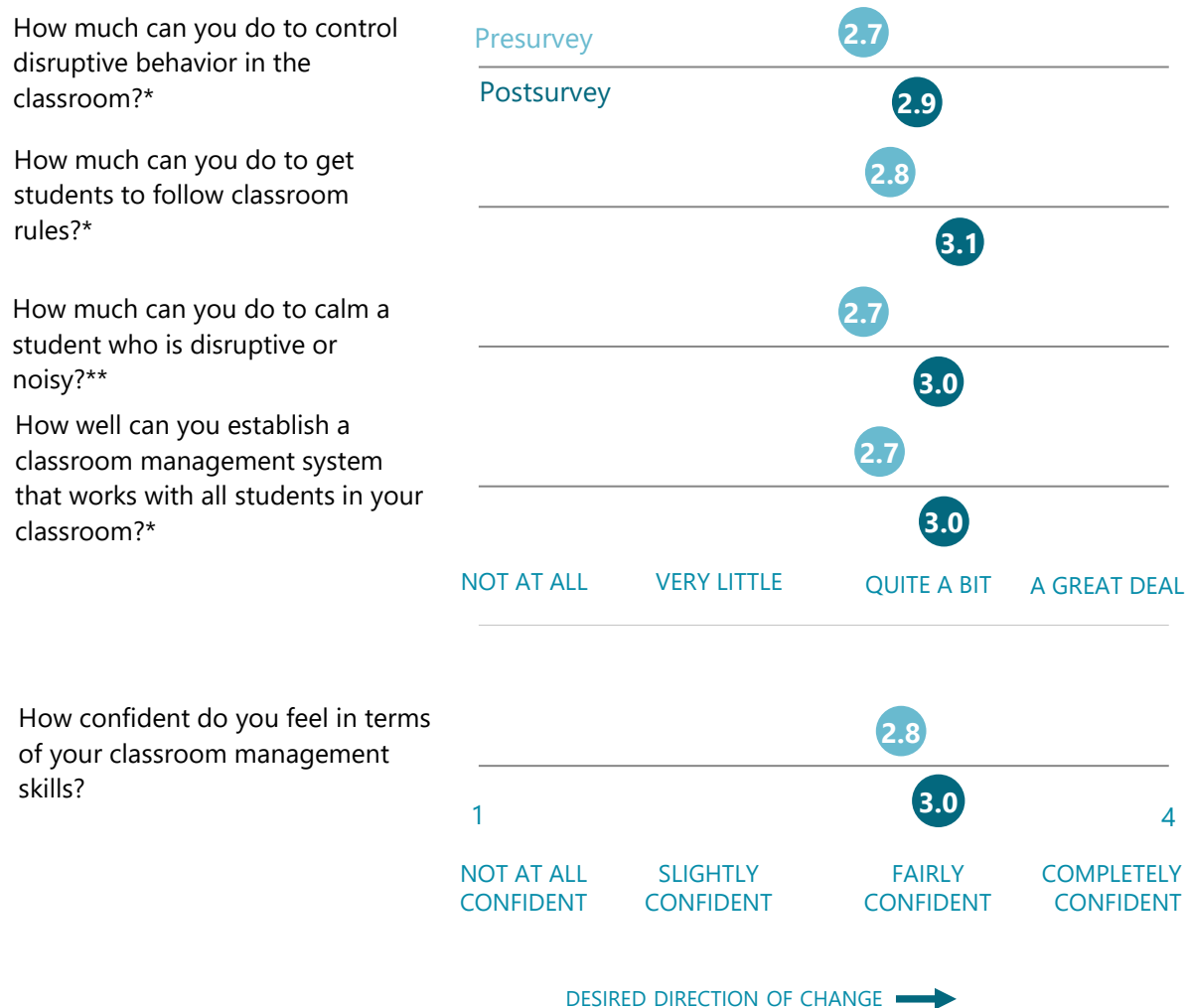
Note. Answers to each item ranged from 1 (not at all/not at all confident) to 4 (a great deal/completely confident). Frequencies for each item are located in Appendix A, Exhibit A.2.

* Differences deemed significant: $p < .05$ and *** $p < .001$ for pre-post comparisons.

Classroom Management

Exhibit 4 Classroom Management

In general participants reported high preparedness ratings at both pre and post. Participants showed significant increases in terms of their ability to control disruptive behavior, get students to follow classroom rules, calm a student who is disruptive and noisy, and establish a classroom management system that works with all students from pre- to post- professional development. Overall confidence in terms of classroom management skills also increased, though not significantly. There were no differences in the results when analyzed by years of experience or credential type.



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Note. Answers to each item ranged from 1 (not at all/not at all confident) to 4 (a great deal/completely confident). Frequencies for each item are located in Appendix A, Exhibit A.3. Differences deemed significant: * $p < .05$ and ** $p < .01$ for pre-post comparisons.

Culturally Responsive Teaching

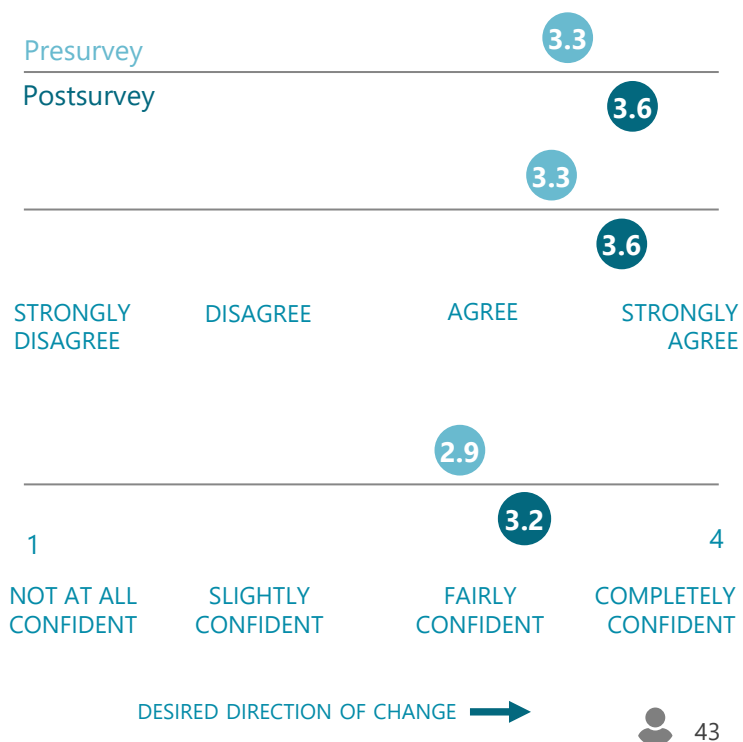
Exhibit 5 Culturally Responsive Teaching

In general participants reported high preparedness ratings at both pre and post. Participants showed significant increases in their ability to create a warm, supporting, safe, and secure classroom environment for culturally diverse students; to communicate with culturally diverse students; and in their overall confidence in their culturally responsive teaching skills from pre- to post- professional development. There were no differences in the results when analyzed by credential type.

I am able to create a warm, supporting, safe, and secure classroom environment for culturally diverse students.**

I am able to communicate with culturally diverse students.***

How confident are you in terms of your culturally responsive teaching skills?*



Note. Answers to each item ranged from 1 (not at all/not at all confident) to 4 (a great deal/completely confident). Frequencies for each item are located in Appendix A, Exhibit A.4. Differences deemed significant: * $p < .05$. ** $p < .01$. *** $p < .001$ for pre-post comparisons.

Differences by Subgroups

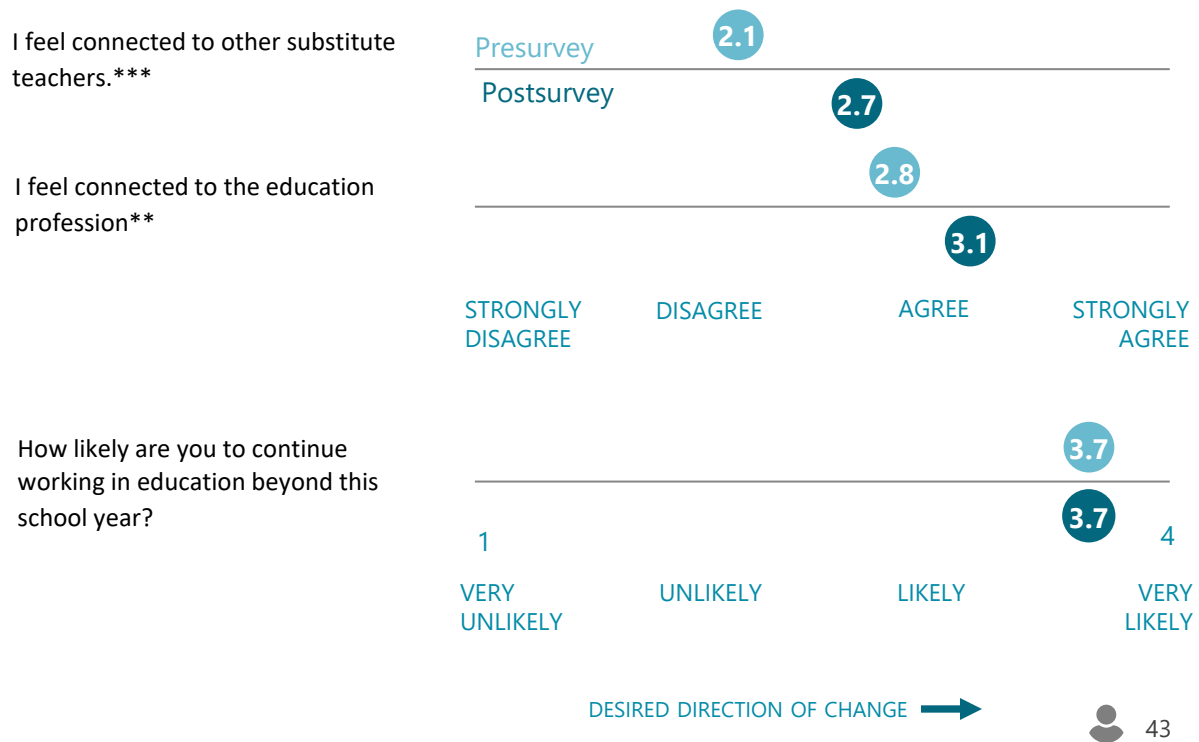
Participants with more experience (i.e., 3 or more years of substitute teaching experience) were the drivers of the significant increases from pre- to post- for all 3 items. For example, only participants with more experience had significant increases in terms of creating a warm, supporting, safe, and secure classroom and in their overall confidence. For ability to communicate with culturally diverse students, both teachers with little experience and more experience showed significant increases, however the effect was larger for the participants with more experience. See Appendix A for a breakdown of the means by subgroup.

SENSE OF BELONGING IN EDUCATION

Pilot participants were also asked questions to assess if they feel a sense of belonging in the education profession.

Exhibit 6 Sense of Belonging

In contrast to the other items on the survey, participants did not provide high ratings on all items at the pre. In particular, the pre survey participants reported they did not feel connected to other substitute teachers. Participants showed significant increases in both how connected they feel to other substitute teachers and to the education profession from pre- to post- professional development. There was no change in how likely participants were to continue working in education, however this was rated as very likely on both the pre and postsurvey. There were no differences in the results when analyzed by years of experience.



Note. Answers to each item ranged from 1 (strongly disagree/very unlikely) to 4 (strongly agree/very likely) Frequencies for each item are located in Appendix A, Exhibit A.5. Differences deemed significant: ** $p < .01$ and *** $p < .001$ for pre-post comparisons.

Differences by Subgroups

Substitute teachers with an Oregon State (TSPC) Teaching Credential ($M = 3.80$) were significantly more likely to continue working in education beyond this school year compared to substitute educators with an Emergency Restricted Substitute License ($M = 3.48$).

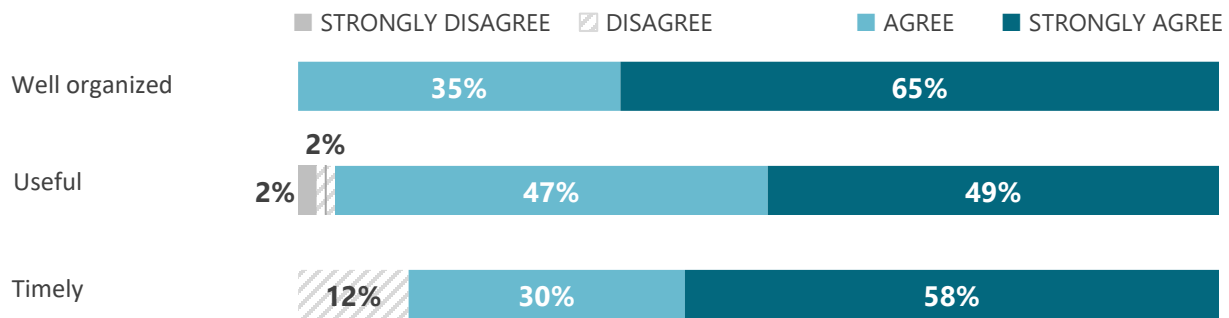
SUBSCHOOL FEEDBACK

The postsurvey included questions to gather participants' feedback on the SubSchool professional development in terms of organization, usefulness, timeliness, and overall quality.

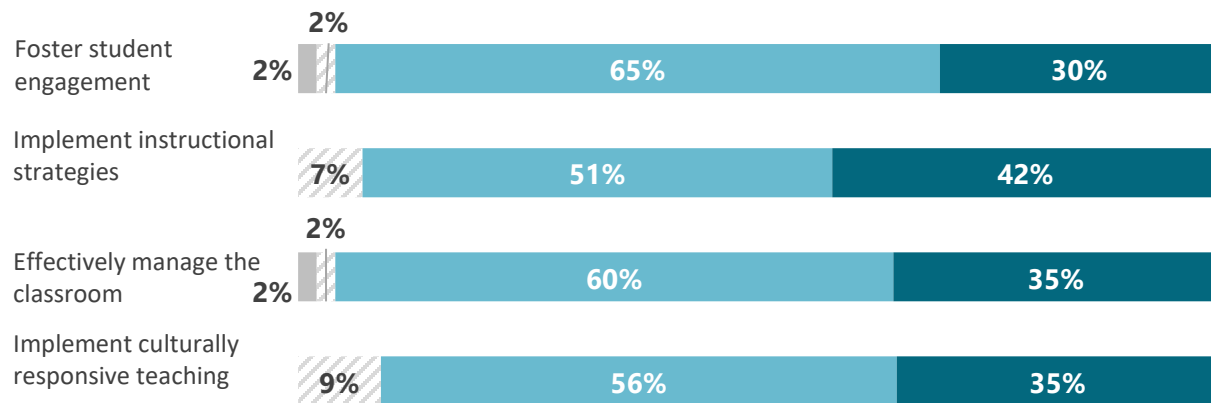
Exhibit 7 Usefulness of SubSchool

Participants agreed or strongly agreed that the professional development was well organized, useful, and timely. They also agreed that the professional development increased their preparedness to foster student engagement, implement instructional strategies, effectively manage the classroom, and implement culturally responsive teaching.

The professional development was . . .



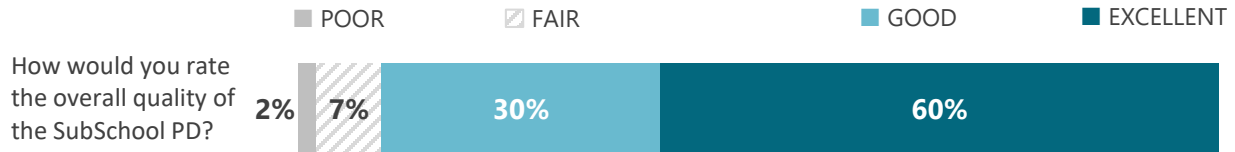
This professional development increased my preparedness to:



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Exhibit 8 Overall Quality of SubSchool

Participants rated the overall quality of the SubSchool professional development as good or excellent.



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Exhibit 9 Likelihood of Recommending SubSchool

Participants indicated that they would be likely to very likely to recommend SubSchool to someone who is interested in starting as a substitute teacher.







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Participants were asked 2 open-ended questions on the postsurvey regarding the most valuable aspects of the professional development and what additional content they would have liked to have covered. As Exhibits 18 and 19 show, **classroom management was both the most valuable content covered, and the area they would have liked covered more.**

Exhibit 10 Most Valuable Aspects of SubSchool

Participants in the pilot program reported finding the classroom management and trauma courses valuable, but also appreciated gaining confidence and being able to access networks and resources.

The most valuable part of SubSchool was:			
	Classroom management course	29%	"The most valuable part of the pilot experience was the classroom management tips and tricks. I was able to start using those right away."
	Trauma course	24%	"Learning about . . . the effects of trauma on student behavior and how to effectively manage students in these conditions."
	Confidence	14%	"Seeing some of the things I already learned on the job, I felt reassured."
	Learning from others	14%	"Hearing from different teachers from across the country with varying levels of experience."

In addition to the above valued aspects of SubSchool participation, individual participants reported that the following specific resources were valuable: emergency lesson plans, printable resources, disruptive behavior resources, information about student accommodations, day in the life modules, and video resources.

Exhibit 11 Additional Needs

Participants requested that SubSchool provide additional, deeper professional development on topics that were covered in the courses as well as new areas of growth.

Many participants wanted deeper professional learning in areas that were covered:

Disruptive student behavior	30%	"I would like to learn more about tools that can be used to address specific disruptive behaviors."
Planning for when there is no lesson plan	10%	"Additional resources and activities (for a variety of age levels) to bring to a classroom when there are no plans"
Additional classroom management techniques	10%	"I'd like to see more classroom management techniques that are more realistic and help you prepare for when things go bad quickly."

Participants also reported they wanted additional professional learning in:

Personal growth through networking, collaboration, and mindfulness	17%	"Being a substitute teacher is a unique job in that your coworkers are always changing, which can feel a bit isolating at times. I would love to see additional topics on how to engage with other substitute teachers to find a sense of community within this job."
Working with special populations and cultures	14%	"More strategies/resources for students that are above grade level and when school isn't challenging enough for them."
Grade- or age-specific resources	14%	"Additional resources and activities (for a variety of age levels) to bring to a classroom when there are no plans."

Individual participants also requested specific training in worst day strategies, graphic organizers, long-term substitute assignments, how to grade assignments, virtual learning, writing substitute notes, learning tools like Canva and Google, and adapting the curriculum.



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FOCUS GROUP FINDINGS

RMC Research conducted 3 focus groups with participants to gather more context around what substitute teachers needs are, if/how the SubSchool professional development met those needs, and what types of training they feel they need moving forward. The first focus group included substitutes from NWRESA with a mix of teaching experience from just starting to retired classroom teachers ($n = 9$). The second focus group included substitutes from PPS with less than 3 years' experience and no education background ($n = 10$). The third focus group included substitutes from PPS with less than 3 years' experience and a background in education (e.g., taught overseas, ran an alternative school, $n = 8$).

In terms of substitute teachers' most pressing needs, responses were similar across the 3 focus groups and similar to the open-ended survey items. Participants reported the **most pressing need being support with classroom management and behavior issues**, and this need was reported as higher in SPED and incentive school classrooms. High vacancy rates of instructional assistants or classified staff, uncertainty around district- and school-level policies, and a lack of information about the students ahead of time all contributed to this need. Participants also reported needing more training on both classroom management and trauma-informed teaching. Other needs noted by participants included (a) more training on both platforms (e.g., Synergy, Canva) and required curriculum used in the district, (b) opportunities to collaborate either with other substitute teachers or other teachers, and (c) more knowledge on the part of school staff about substitute teachers' rights in terms of accepting or declining assignments. Participants suggested the following strategies to help support their needs:

- Provide trainings that cover more severe behavioral issues such as students climbing out of windows, school violence among students, and bullying (both bullying among students and bullying of substitute teachers).
- Provide trainings on specific curriculum and other platforms used in the district or offer teacher professional development opportunities to substitute teachers.
- Ensure teachers are aware of how important it is to prepare their students for having a substitute in their class (i.e., set expectations ahead of time if possible and leave a specific assignment for them to complete which could motivate and engage them).
- Provide substitute teachers with context about the students and overall classroom such as:
 - Helpful information that is student specific
 - Photos and preferred names and pronouns of students
 - Tips and tricks for the group of students they will be subbing for
 - Identifying the students who have varying needs
 - Identifying who the safe adults are for students who are high needs
- Strategize ways to connect substitute teachers with school and district staff so that they can more fully understand the culture and policies at the district and school level and feel less isolated.

- Integrate substitute teachers more by inviting them to professional development offerings, providing them the same access to technology that teachers have, and providing them training on required curriculum.

In terms of substitute teachers' feedback on the SubSchool professional development, **participants with less experience in education found the courses more valuable than those with more education experience.** New substitutes felt the courses exceeded their expectations, were better than training received by the districts they serve, provided applicable advice that they used daily in the classroom, and reported having a better relationship with students because of the trauma course. Participants shared that they learned new skills such as noticing when they are in a power struggle with students and intentionally spending equal amounts of energy on both disruptive and nondisruptive students. Participants also appreciated the tips and tricks such as prepping lunch/snacks, arriving early to orient themselves to the school, and different attention getters they can use with students.

Substitutes who had more background education experience felt the courses were redundant, basic, overly generalized, and idealistic. There were a few seasoned substitutes who felt as if the content was review but still appreciated the refresher, however most of the more experienced substitutes felt that there was little growth for them as a result of participating in the pilot. These participants shared that many of the tips in the trauma-informed course felt difficult to apply and formulaic. For example, one participant shared that learning about fight/flight/freeze was useful, however when in a classroom of 24 Kindergarten or first graders and dealing with a behavioral issue, understanding this concept is not very helpful. Participants felt that either more examples of experiences, or more specific ways to handle certain situations would have been more helpful. Participants with more education experience also reported wanting more differentiation by grade level. They felt it was not realistic to suggest the same approaches can be used for kindergarten and high school students. They noted that there was some differentiation by grade level, but not as much as they were hoping for. Although more experienced substitutes felt that the professional development had little to offer them currently, it would have been useful to them if they had no education experience or were brand new to substitute teaching.

“The trauma part of [SubSchool professional development] showed me just recently these kids come from different homes, different backgrounds, they've had major [events] happening in their life that cause them to burst out in class. . . . I'm changing my attitude since I have taken this lesson, and I'll tell you I am much happier in that classroom. I can laugh with the kids now. I can have fun with them while before I was so stressed out every time I walked in there.”

“Effectively managing the classroom...it just felt a bit formulaic . . . do this and this result will happen, which was kind of a bummer.”

Across both experienced and less experienced substitutes, participants appreciated some of the simple activities and reported learning more language around how to redirect students. Participants commented on the sense of community during the professional development and at the schools in which they are subbing. Participants reported feeling comforted hearing educators with decades of experience expressing the same feelings and experiences they have working as a substitute for less than a year. Camaraderie of other human beings, ideally within the same district, was reported as ideal. Participants reported that part of the challenge of substitute teaching is that they do not have other people to bounce ideas off of or learn from. They were expecting more opportunities to network and interact with other substitutes through SubSchool than there were. See Appendices B–D for individual write-ups of each focus group.

COURSE-SPECIFIC FEEDBACK FROM SUBSCHOOL

The following section presents findings from the feedback questions that SubSchool asks at the beginning and end of each course. Courses included Welcome (role and responsibilities as a substitute teacher), Classroom Management (classroom management strategies and approaches), Instruction (facilitating instruction as a substitute teacher), and Trauma (understanding of trauma-informed teaching). The survey included both close ended and open-ended items. All 43 pilot participants completed each course-specific survey.

Participants reported a **high likelihood of implementing or trying a tool or strategy from all 4 courses** (means ranged from 8.6 to 9.2 on a scale of 1 *not likely* and 10 *very likely*).

Participants also reported a **high likelihood that they would recommend each SubSchool course** to someone who is interested in starting as a substitute teacher (Means ranged from 8.3 to 8.8 on a scale of 1 *not likely*, and 10 *very likely*).

Exhibit 12 Course-Specific Growth

Participants rated how confident they were in their role as substitute teacher at the onset and conclusion of each course. Participants confidence increased significantly from pre to post after each course.



DESIRED DIRECTION OF CHANGE →

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*** $p < .001$ for pre-post comparisons.

Exhibit 13 Most Valuable Aspects of Welcome Course

Participants were asked about the 2 most valuable or helpful aspects of the Welcome course. A thematic analyses did not identify 2 constantly valuable aspects, instead participants identified 7 areas of note. This indicates that participants have a wide range of needs.








Welcome Course			
The most valuable and helpful part of the Welcome course was:			
	Confidence and self-care	39%	"I learned how to be productive in the best way and give myself time to breathe."
	Bag of tricks	24%	"I was glad to glean . . . examples of teachers' bag-of-tricks inventory."
	Opening and closing strategies	24%	"I am glad I learned some opening and closing strategies for my sub routine."
	Learning from others	20%	"It was great hearing from other substitutes who have similar experiences as mine."
	Classroom familiarization tips	20%	"The importance of familiarizing yourself with the layout and expectations of the classroom before the students arrive."
	Making connections within a school	12%	"Interacting with faculty and administration is key to making connections and ultimately feeling comfortable in the place you work."
	Flexibility	10%	"Being flexible and how to prepare for the unexpected."

Exhibit 14 Most Valuable Aspects of Classroom Management Course

Participants were asked about the 2 most valuable or helpful aspects of the Classroom Management course and they identified the top 2 as self-management and empathy.






Classroom Management Course			
The most valuable and helpful part of the Classroom Management course was:			
	Self-Management	44%	"Remaining calm, avoiding frustration and employing flexibility and humor seem to be among the best course of action."
	Empathy	42%	"Classroom disruption is often the result of an unspoken need on the part of a student, and practicing empathy is the best way forward."
	Proactive vs. Reactive Responses	23%	"The most useful lessons were on proactive and responsive classroom management. . . . They had tangible resources."
	Attention-getting and transitioning strategies	21%	"I'm glad I learned about attention getters and was shown available sources on how to redirect student behaviors."
	Cultural Sensitivity	21%	"Being aware of cultural differences in both verbal, and nonverbal communication."

Exhibit 15 Most Valuable Aspects of Instruction Course

Participants were asked about the 2 most valuable or helpful aspects of the Instruction course. A thematic analyses did not identify 2 constantly valuable aspects, instead participants identified 6 areas of note. This indicates that participants have a wide range of needs.












Instruction Course			
The most valuable and helpful part of the Instruction course was:			
	Learning to engage students	38%	"Each kid learns differently, and meeting each educational need takes many different approaches."
	Teaching with no lesson plan	35%	"I am glad I learned some ready-to-use strategies for making lessons for kids when the lesson doesn't work or isn't available."
	Filling time with an activity toolkit	33%	"I like that I was given ideas for activities based on how much time you have."
	The "How" and "What" of instruction	20%	"I think what really resonated with me was the 'how' and 'what' sections because it allowed me to better understand what to do."
	Building community	15%	"Getting resources on how to build a sense of community as a substitute while being able to continue education."
	Growth mindset	13%	"I was grateful for the 'Not Yet' presentation [on growth mindset] . . . It made me think of several times recently that students showed frustration over a skill, and I could have reframed the moment and discussed 'Not Yet.' It may have changed their perception of themselves in that moment and future moments."

Exhibit 16 Most Valuable Aspects of Trauma Course

Participants were asked about the 2 most valuable or helpful aspects of the Trauma course. Five areas of note were identified, with response strategies the most mentioned at 59%.

Trauma Course			
Of 41 respondents, the most valuable and helpful part of the Trauma course was:			
	Response strategies	59%	"I am grateful to have learned some new strategies to help students who are beginning to escalate. Knowing how to and when to use the help, process, wait, and prompt strategies."
	Recognizing trauma behaviors	39%	"Learning about the 3 most likely responses from students to difficult situations which are Fight, Flight, or Freeze is helpful so I can identify in the moment what is happening to a student, and I will be better able to choose an appropriate response."
	Self-Awareness	27%	"Understanding that I come into each classroom I teach with my own background experiences (positive and negative) that can be potentially triggered by the behavior of students."
	Statistics and examples	17%	"I learned that 25–50% of students come to school with some sort of trauma."
	Predictability	12%	"This course was an excellent reminder of the need for consistency and predictability. Staying to the plan is not boring, but safe."

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APPENDIX A

ANALYTIC APPROACH AND DATA TABLES

To examine differences before and after participating in the professional development, pre and postsurvey responses were compared via paired-samples *t*-tests. Pre and postsurvey responses were also submitted to 2 repeated measures ANOVAs with years of experience (analysis 1¹) and teaching credential (analysis 2²) as between-subjects factors. The 3 substitute teachers who indicated they had teaching credentials other than Emergency Restricted Substitute License or Oregon State (TSPC) Teaching Credential were excluded from analysis 2 for each measure, but these 3 teachers were included in all other analyses and descriptive summaries. Significant differences are noted throughout the technical report. Nonsignificant differences are only noted for the subgroup analyses (the repeated measures ANOVAs). Follow-up paired samples *t*-tests were conducted to examine significant interactions.

Exhibit A.1: Student Engagement: Frequencies and Means

Item	Pre/Post	Not at all	Very little	Quite a bit	A great deal	<i>M</i>
How much can you do to motivate students who show low interest in school work?	Pre	0%	21%	70%	9%	2.88
	Post	0%	16%	67%	16%	3.00
How well can you provide appropriate challenges for high achieving students?***	Pre	0%	40%	51%	9%	2.70
	Post	0%	26%	44%	30%	3.05

Item	Pre/Post	Not at all confident	Slightly confident	Fairly confident	Completely confident	<i>M</i>
How confident do you feel in terms of fostering student engagement?	Pre	0%	12%	74%	14%	3.02
	Post	0%	14%	70%	16%	3.02

Note. *N* = 43. Answers to each item ranged from 1 (*not at all/not at all confident*) to 4 (*a great deal/completely confident*). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100.

****p* < .01 for pre-post comparison.

¹Sample size for Analysis 1 is *N* = 30 for teachers with Little Experience (i.e., under 3 years) and *N* = 13 for teachers with A Lot of Experience (i.e., more than 3 years).

²Sample size for Analysis 2 is *N* = 20 for each group.

Exhibit A.2: Instructional Strategies: Frequencies and Means

Item	Pre/Post	Not at all	Very little	Quite a bit	A great deal	M
To what extent can you provide an alternative explanation or example when students are confused?	Pre	0%	7%	60%	33%	3.26
	Post	0%	5%	56%	40%	3.35
How well can you differentiate instructional strategies to meet students' varying needs in your classroom?***	Pre	0%	28%	53%	19%	2.91
	Post	0%	7%	65%	28%	3.21
Item	Pre/Post	Not at all confident	Slightly confident	Fairly confident	Completely confident	M
How confident do you feel in terms of implementing instructional strategies?*	Pre	2%	26%	58%	14%	2.84
	Post	0%	9%	70%	21%	3.12

Note. N = 43. Answers to each item ranged from 1 (*not at all/not at all confident*) to 4 (*a great deal/completely confident*). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100. *** $p < .001$ and * $p < .05$ for pre-post comparison.

Exhibit A.3: Classroom Management: Frequencies and Means

Item	Pre/Post	Not at all	Very little	Quite a bit	A great deal	M
How much can you do to control disruptive behavior in the classroom?*	Pre	2%	33%	60%	5%	2.67
	Post	0%	26%	58%	16%	2.91
How much can you do to get students to follow classroom rules?*	Pre	2%	26%	63%	9%	2.79
	Post	0%	14%	63%	23%	3.09
How much can you do to calm a student who is disruptive or noisy?***	Pre	5%	33%	53%	9%	2.67
	Post	0%	14%	72%	14%	3.00
How well can you establish a classroom management system that works with all students in your classroom?*	Pre	2%	28%	63%	7%	2.74
	Post	0%	16%	65%	19%	3.02
Item	Pre/Post	Not at all confident	Slightly confident	Fairly confident	Completely confident	M
How confident do you feel in terms of your classroom management skills?	Pre	0%	28%	60%	12%	2.84
	Post	0%	21%	58%	21%	3.00

Note. N = 43. Answers to each item ranged from 1 (*not at all/not at all confident*) to 4 (*a great deal/completely confident*). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100. ** $p < .01$ and * $p < .05$ for pre-post comparison.

Exhibit A.4: Culturally Responsive Teaching: Frequencies and Means

Item	Pre/Post	Strongly disagree	Disagree	Agree	Strongly agree	M
I am able to create a warm, supporting, safe, and secure classroom environment for culturally diverse students.**	Pre	0%	0%	65%	35%	3.35
	Post	0%	0%	37%	63%	3.63
I am able to communicate with culturally diverse students.***	Pre	0%	0%	72%	28%	3.28
	Post	0%	0%	42%	58%	3.58

Item	Pre/Post	Not at all confident	Slightly confident	Fairly confident	Completely confident	M
How confident are you in terms of your culturally responsive teaching skills?*	Pre	2%	28%	49%	21%	2.88
	Post	0%	9%	65%	26%	3.16

Note. $N = 43$. Answers to each item ranged from 1 (*strongly disagree/not at all confident*) to 4 (*strongly agree/completely confident*). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100.

*** $p < .001$, ** $p < .01$, and * $p < .05$ for pre-post comparison.

Differences by Subgroups for Culturally Responsive Teaching

There were differences in responses to culturally responsive teaching questions across pre and postsurveys for substitute teachers with little vs. a lot of experience, but no differences across types of teaching credential.

- Only substitute teachers with a lot of experience showed significant differences from pre ($M = 3.3077$) to post ($M = 3.8462$) professional development in how much they agreed that they are able to create a warm, supporting, safe, and secure classroom environment for culturally diverse students. There were no significant differences from pre ($M = 3.3667$) to post ($M = 3.5333$) professional development for substitute teachers with little experience.
- Although both substitute teachers with little and a lot of experience showed significant differences from pre (Little experience: $M = 3.3333$; A lot of experience: $M = 3.1538$) to post (Little experience: $M = 3.5333$; A lot of experience: $M = 3.6923$) professional development in how much they agreed that they are able to communicate with culturally diverse students, the effect was larger for substitute teachers with a lot of experience.
- Only substitute teachers with a lot of experience showed significant differences from pre ($M = 2.5385$) to post ($M = 3.2308$) professional development in how confident they felt in terms of their culturally responsive teaching skills. There were no significant differences from pre ($M = 3.0333$) to post ($M = 3.1333$) professional development for substitute teachers with little experience.

Exhibit A.5: Sense of Belonging in Education: Frequencies and Means

Item	Pre/Post	Strongly disagree	Disagree	Agree	Strongly agree	M
I feel connected to other substitute teachers.***	Pre	23%	44%	28%	5%	2.14
	Post	12%	26%	49%	14%	2.65
I feel connected to the education profession**	Pre	9%	19%	53%	19%	2.81
	Post	2%	14%	51%	33%	3.14

Item	Pre/Post	Very unlikely	Unlikely	Likely	Very likely	M
How likely are you to continue working in education beyond this school year?	Pre	0%	0%	35%	65%	3.65
	Post	2%	5%	19%	74%	3.65

Note. N = 43. Answers to each item ranged from 1 (strongly disagree/very unlikely) to 4 (strongly agree/very likely). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100. ***p < .001 and **p < .01 for pre-post comparison.

Exhibit A.6: SubSchool Feedback: Frequencies and Means

Item	Strongly disagree	Disagree	Agree	Strongly agree	M
The professional development was:					
Well organized	0%	0%	35%	65%	3.65
Useful	2%	2%	47%	49%	3.42
Timely	0%	12%	30%	58%	3.47
This professional development increased my preparedness to:					
foster student engagement	2%	2%	65%	30%	3.23
implement instructional strategies	0%	7%	51%	42%	3.35
effectively manage the classroom	2%	2%	60%	35%	3.28
implement culturally responsive teaching	0%	9%	56%	35%	3.26

Item	Poor	Fair	Good	Excellent	M
How would you rate the overall quality of the SubSchool PD?	2%	7%	30%	60%	3.49

Item	Very unlikely	Unlikely	Likely	Very likely	M
How likely would you be to recommend SubSchool to someone who is interested in starting as a substitute teacher?	5%	7%	26%	63%	3.47

Note. N = 43. Answers to each item ranged from 1 (strongly disagree/poor/very unlikely) to 4 (strongly agree/excellent/very likely). Percentages are rounded to the nearest whole number so they may not always sum to exactly 100.

Exhibit A.7: SubSchool Feedback Ratings by Course

Item	Course			
	Welcome	Classroom Management	Instruction	Trauma
How likely are you to implement or try a tool or strategy from this course?	8.63	8.81	9.23	9.12
How likely would you be to recommend this course to someone who is interested in starting as a substitute teacher?	8.51	8.28	8.79	8.81

Note N = 43.

Course	Item	Pre	Post
Welcome	I feel confident in my role and responsibilities as a substitute teacher in a school community and classroom.***	7.35	8.88
Classroom Management	I feel confident in my ability to manage a classroom as a substitute teacher.***	7.00	8.30
Instruction	I feel confident about facilitating instruction as a substitute teacher.***	7.26	8.51
Trauma	I feel confident in my understanding of trauma-informed teaching.***	5.65	8.09

Note. N = 43.

***p < .001 pre-post comparison.

APPENDIX B

NWRESD FOCUS GROUP FINDINGS (VARYING LEVELS OF SUB TEACHING EXPERIENCE)

Substitute Teachers' Most Pressing Needs

Focus group participants shared the most pressing need is support with classroom management, specifically with classrooms that have many students with high needs. Participants reported frustration at the lack of support within the school for these students, citing high vacancy rates of instructional assistants or classified staff and lack of support from school staff when classroom management issues arise. Classroom management is also a topic that participants noted has not been thoroughly covered in previous trainings.

“Classroom behaviors are kind of extreme in a lot of the rooms I am in right now, and also the classified vacancy rates are pretty high every day so a lot of the kids who are supposed to have supports in the classroom, which would also support me with that child in the classroom, aren’t available or the IAs are getting pulled in another more pressing room...that makes it really stressful. A lot of times the teachers will assume the support person will be there but often they are not.”

Participants suggest the following logistical strategies to help support classroom management challenges:

- Strategize on how to ensure the Instructional Assistants or Classified staff are able to be present in the classrooms when there is a substitute teacher teaching that day.
- Provide substitute teachers with binders that contain more context about the students such as
 - Helpful information that is student specific
 - Photos, names, and preferred pronouns of students
 - Tips and tricks for the group of students they will be subbing for
 - Identifying the students who have varying needs
 - Identifying who the safe adults are for students who are high needs

Participants also noted feeling disconnected from the school they are subbing in due to not having consistent access to platforms such as Synergy or Canvas, not having a full understanding of the school culture including implicit expectations/assumptions, and not being trained on the required curriculum used. Participants provided some suggestions that could lead to them feeling more integrated into the system including providing them with consistent access to the necessary platforms they need, inviting them to staff meetings, and providing access to training for things such as curriculum that is used. Additional struggles mentioned included feeling isolated with no way to connect to other teachers or substitute teachers, and navigating hostile environments in some schools (e.g., teachers or staff who dismiss them and are intentionally unsupportive).

SubSchool Professional Development Feedback

Participants described the SubSchool professional development as helpful, broad, necessary, timely, useful, informative, and a combination of a good overview and new knowledge gained. Participants shared that they expected a training similar to what they have experienced in the past, but were pleasantly surprised with SubSchool's quality. Participants noted that the course content was exceptional, topics were covered in depth, and many of the materials and tips provided could be used in the classroom right away.

In terms of the **delivery of the professional development**, participants appreciated that the platform is user friendly, visually appealing and easy to navigate. Participants reported that the questions asked during the courses kept them engaged and led to more knowledge gains, and that they liked the self-pacing aspect (i.e., that you could stop and start later right where you left off), and that the videos were engaging. Other specific elements participants noted as helpful were the brain breaks and games and the focus of what was crucial in each section.

In terms of **content covered**, participants noted that the first course/module felt like it was geared toward substitute teachers who have not started substitute teaching at all and that they would have liked to have the option to skip that section. Similarly, one participant who had many years of both substitute and teaching experience felt the content was mostly review. Other more seasoned participants felt that some material was review but there was also new information they found helpful and overall appreciated the experience.

In terms of specific content areas, participants agreed that the trauma-informed practice content was the most relevant, needed, and helpful content of the professional development. Participants shared that the underlying cause of many classroom management issues relates to trauma; having a course dedicated to this topic has helped participants navigate behavioral issues in ways that they did not have access to previously.

One participant reported attending a live session on moving into full time teaching that they found useful. All participants planned on accessing additional resources before the end of the year.

"I've had 5 different school districts trainings that they make you do every year. None of them, even like really touch the surface of the stuff that I came across in the SubSchool trainings that we did."

"It got into the meaty stuff pretty quick. I had my own classroom of sixth and eighth graders for 29 years... the classroom management stuff in [SubSchool] was solid. It was really good. I learned new stuff, and I was reminded of stuff that is always good to be reminded of. Same thing with the lesson planning. I didn't think any of that was not useful to me."

SubSchool Impact on Preparedness

Participants reported their preparedness increasing the most in terms of effectively managing the classroom and fostering student engagement. One participant noted that they learned useful information in terms of understanding that many times engagement is low because the student is confused or struggling to understand a concept. Another participant shared that SubSchool prompted them to move about the classroom constantly which helps them identify students who might be struggling. Participants also shared that implementing instructional strategies was not as high of a need for them because typically they receive lesson plans laid out for them, however they did benefit from tips and tricks such as checking for understanding throughout the lesson.

“The trauma part of [SubSchool professional development] showed me just recently these kids come from different homes, different backgrounds, they've had major [events] happening in their life that cause them to burst out in class. . . . I'm changing my attitude since I have taken this lesson, and I'll tell you I am much happier in that classroom. I can laugh with the kids now. I can have fun with them while before I was so stressed out every time I walked in there.”

Other Comments

Participants emphasized that communicating to teachers that SubSchool Professional Development is a high-quality course and different from the typical trainings schools and districts provide would be helpful in terms of getting more substitute teachers to participate.

APPENDIX C

PPS FOCUS GROUP FINDINGS (LITTLE/NO EDUCATION BACKGROUND)

Substitute Teachers' Most Pressing Needs

Focus group participants shared the most pressing need is support with classroom management, and that the need is highest for SPED classrooms and elementary and middle school levels. Participants reported feeling physically unsafe in some classrooms, many times due to not having enough paraeducators present. One participant reported trying to take assignments in the same schools so that they can establish relationships with students, but it is difficult. Participants also noted that it is difficult to navigate what changes from school to school and what policies are districtwide versus school-specific, making it difficult for them to know what they can and cannot do in terms of responding to classroom disruptions. Many examples were provided. One participant physically broke up a fight between 2 students and then realized that they broke a rule in doing that. Another participant noted that cell phone use is something that impedes classroom management, and often they do not know what the limits are of what they are able to do or not do (i.e., confiscating cell phones). Lastly, one participant noted that substitutes do not have access to the same technology as the teachers which impedes their ability to manage the classroom, specifically being able to monitor what the students are doing on their Chromebook remotely.

Participants reported needing more training in classroom management and being culturally responsive. Specifically, participants wanted more guidance on what to do when the more general tips do not work (e.g., students running out of the classroom). Participants also had several suggestions that are district/school related that would help support classroom management challenges:

- Strategize ways to support having substitutes work in the same schools so that they can more easily form relationships with students and staff, and having a designated point person who will be available for subs to come to with questions or concerns.
- Integrate substitute teachers more by inviting them to professional development offerings, providing them the same access to technology that teachers have, and providing them training on required curriculum.

“I have subbed in a special ed room for a week where I wasn't even told that the teacher was out because she has a concussion from a kid hitting her, and that kid was being reintegrated while I was there. It's like no warning, no information given to me to let me know what's going on, and um and the other thing that I find that I don't know as a new sub is when you are working with really difficult children physically, what are we legally able to do to protect ourselves and protect them.”

- Ensure teachers are aware of how important it is to prepare their students for having a substitute in their class (i.e., set expectations ahead of time if possible and leave a specific assignment for them to complete which could motivate and engage them).
- Arrange for new substitutes to be able to observe a classroom before their first assignment so they can orient to things like how to work the projector, log in, etc.
- Provide training that covers school violence among students and bullying (both bullying among students and bullying of substitute teachers).
- Provide substitute teachers with context about the students and overall classroom such as
 - Helpful information that is student specific
 - Photos and preferred names and pronouns of students
 - Tips and tricks for the group of students they will be subbing for
 - Identifying the students who have varying needs
 - Identifying who the safe adults are for students who are high needs

SubSchool Professional Development Feedback

Participants described the SubSchool professional development as organized, useful, helpful, informative, valuable, practical, comprehensive, manageable, inspiring, and concise.

Most participants had low or no expectations, sharing that they thought this professional development offering would be similar to previous trainings they have taken which were not noteworthy. One participant reported having high expectations and was excited to sign up. All participants felt the SubSchool professional development exceeded their expectations, sharing that they learned new skills such as noticing when they are in a power struggle with students and intentionally spending equal amounts of energy on both disruptive and nondisruptive students. Participants also appreciated the tips and tricks such as prepping lunch/snacks, arriving early to orient yourself to the school, and different attention getters they can use with students. Generally participants felt that the professional development would have been most useful when they just started to substitute teach, but they still felt they learned things that they apply in classrooms daily. Participants also liked the sense of community between substitute teachers that the professional development generated, and shared that more opportunities to network would have been appreciated.

“I agree with what's been said regarding this being like effective program before someone begins subbing, but actually I found it really effective even now, because it repeated and reinforced a lot of things I already knew. But then I had specific situations where I could be like, Oh, this would have been a good technique to have used then.”

Participants reported experiencing the most growth in terms of classroom management, and although that content was the most helpful, they felt that even more could have been included.

Participants also requested more content on culturally responsive strategies and felt periodic emails with content reminders would be helpful in keeping what they learned at the forefront of their mind. All participants expected to access additional materials and resources before their membership expires at the end of the year.

Other Comments

Overall, participants spoke favorably about the professional development, and one suggested retaking it every year could be beneficial as there is enough material for subs to get additional skills. The downloadable PDFs were often noted as helpful. One piece of feedback was that the program could solicit the challenges substitute teachers face in their work, and that an opportunity to shadow a teacher in class prior to a sub's first ever assignment would ease anxiety.

APPENDIX D

PPS FOCUS GROUP FINDINGS (NEW SUBSTITUTES WITH EDUCATION BACKGROUND)

Substitute Teachers' Most Pressing Needs

Focus group participants shared the most pressing need is training and support related to classroom management, implementing required curriculum, and navigating policies at both the district and school level. In terms of classroom management, participants shared they (a) feel they need more training to handle the many behavioral issues that come up across grade levels, and (b) often are not provided needed context about who the students are or what types of behavioral issues might come up. In terms of implementing required curriculum, participants reported feeling ill-equipped to implement required curriculum such as 'Wit and Wisdom' and that it is hard to keep up when the curriculum changes often. In addition to curriculum, participants also felt they needed training in some of the applications students are using such as Canva. This was noted as an extra challenge when on a long-term assignment.

In terms of navigating policies at both the district and school level, participants noted how difficult it is to know what changes from school to school and what policies are districtwide versus school specific, making it hard to know how to handle behavior issues. Participants also noted that what is written down on paper in terms of expectations is often very different from what is actually practiced. For example, multiple participants reported feeling pressured to take on 'extra' assignments at a school (i.e., an assignment that they did not previously sign up for) which has led to finding themselves in uncomfortable power dynamics. Additionally, participants noted how solitary being a substitute teacher is. Often when they go into a school for an assignment, they do not have a relationship with any of the teachers or administrative staff. More robust assistance and communication from the PPS substitute office was also noted, with one participant mentioning a lack of people available for phone support and lengthy waits for email support which has resulted in missing substitute teaching opportunities.

"When I was learning it was completely different curriculum, and they've changed it like 3 times since, and so now, like the with Wit and Wisdom. I have teachers expecting me to teach it, and I don't know how they teach it, or what they do, because I have no idea, and I feel like That's just like a whole hour, half an hour of my time that's been wasted for me and for the kids."

"It is hard when you go into a school and do not know any of the teachers or admin staff. I'm kind of just on my own a lot. It would be helpful if subs had opportunities or ways to connect to other teachers and subs. To talk about what does and does not work for them."

Participants offered the following suggestions to help with these pressing needs:

- Provide trainings that cover more severe behavioral issues such as students climbing out of windows or running out of class.
- Provide trainings on specific curriculum and other platforms used in the district, or offer teacher professional development opportunities to substitute teachers.
- Provide substitute teachers with context about the students and overall classroom such as:
 - Helpful information that is student specific
 - Photos and preferred names and pronouns of students
 - Tips and tricks for the group of students they will be subbing for
 - Identifying the students who have varying needs
 - Identifying who the safe adults are for students who are high needs
- Including more information on Frontline, including grade level, daily schedule, and lesson plans in advance.
- Arrange for substitute to be able to arrive at their classroom early so that they have time to review materials and orient themselves.
- Strategize ways to connect substitute teachers with school and district staff so that they can more fully understand the culture and policies at the district and school level, and feel less isolated.
- Ensure teachers and administrative staff are aware of substitute teachers' rights in terms of accepting or declining assignments.

SubSchool Professional Development Feedback

Participants described the SubSchool professional development as simple, basic, clarifying, introductory, idealistic, helpful, repetitive.

Participants reported that the SubSchool courses were very similar to training they received by the district, and that overall, they did not find it very useful. The content was described as 'overly basic' and that it felt like common sense or common knowledge if you have been substituting for more than a few months. One participant also noted that there was a lot of repetition between the courses. Participants did, however, feel that this professional development would be useful for brand new substitutes who have not begun substitute teaching yet.

The trauma-informed course was the course participants liked the most, however they felt it was overly generalized and idealistic. Many of the tips felt difficult to apply and formulaic. For example, one participant shared that learning about fight/flight/freeze was useful, however when in a classroom of 24 Kindergarten or first graders and dealing with a behavioral issue, understanding this concept is not very helpful. Participants felt that either more examples of experiences, or more specific ways to handle certain situations would have been more helpful.

Participants also reported wanting more differentiation by grade level. They felt it was not realistic to suggest the same approaches can be used for kindergarten and high school students. They noted that there was some differentiation by grade level, but not as much as they were hoping for.

“Effectively managing the classroom...it just felt a bit formulaic...do this and this result will happen, which was kind of a bummer.”

Participants did appreciate some of the simple activities and reported learning more language around how to redirect students. Participants also reported feeling comforted hearing educators with decades of experience expressing the same feelings and experiences they have working as a substitute for less than a year, but it would be even better having that experience in person. Camaraderie of other human beings, ideally within the same district, was reported as ideal. Participants reported that part of the challenge of substitute teaching is that they do not have other people to bounce ideas off of or learn from. They were expecting more opportunities to network and interact with other substitutes through SubSchool than there were.

On the survey, more experienced substitutes showed the most growth in culturally responsive teaching preparedness compared to less experienced substitutes. Participants were asked their thoughts on why this may be. Participants felt that teachers who have been teaching a long time are not as well versed as new teachers in culturally responsive teaching because it was not at the forefront when those experienced teachers were getting their training, so they may have more room for growth. It was also shared that the particular history and ongoing challenges of racism in Portland, including disparate numbers of Black teachers and Black administrators, make culturally responsive teaching both more novel and fraught for educators.



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