November 15th, 2023

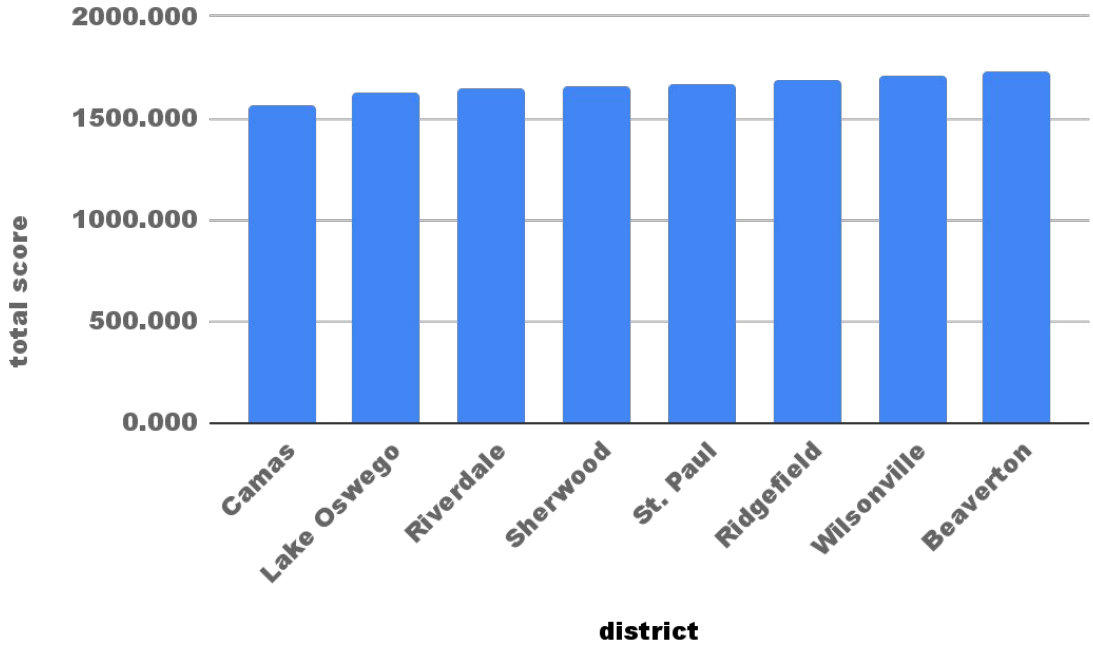
Cobblestone Learning Center

Student **Intake Scores** Differ Across Student Populations

To understand student achievement, we needed to find the baseline scores across respective school districts.

Here, we found that Beaverton and Wilsonville students come with most advanced scores, while Camas students score lower on average by 169 points.

In conclusion, **there is baseline achievement gap in different student populations** (districts).

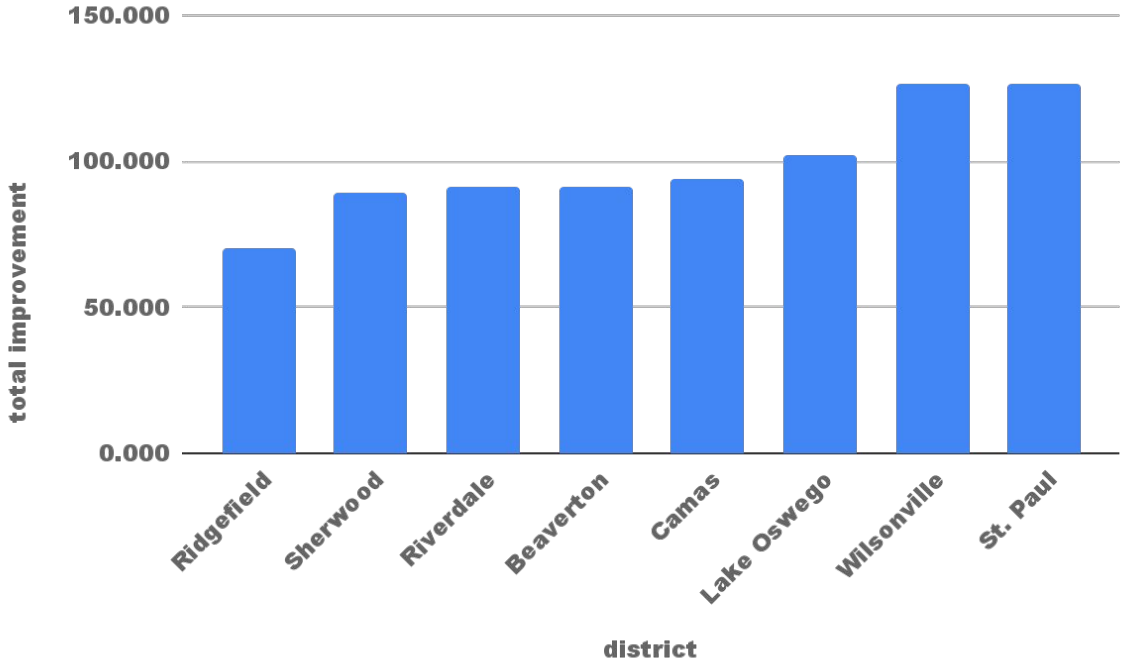


Student **Improvement** Differs Across Student Populations

Now that we know baseline achievement, we can see whether there are differences in score improvement across areas.

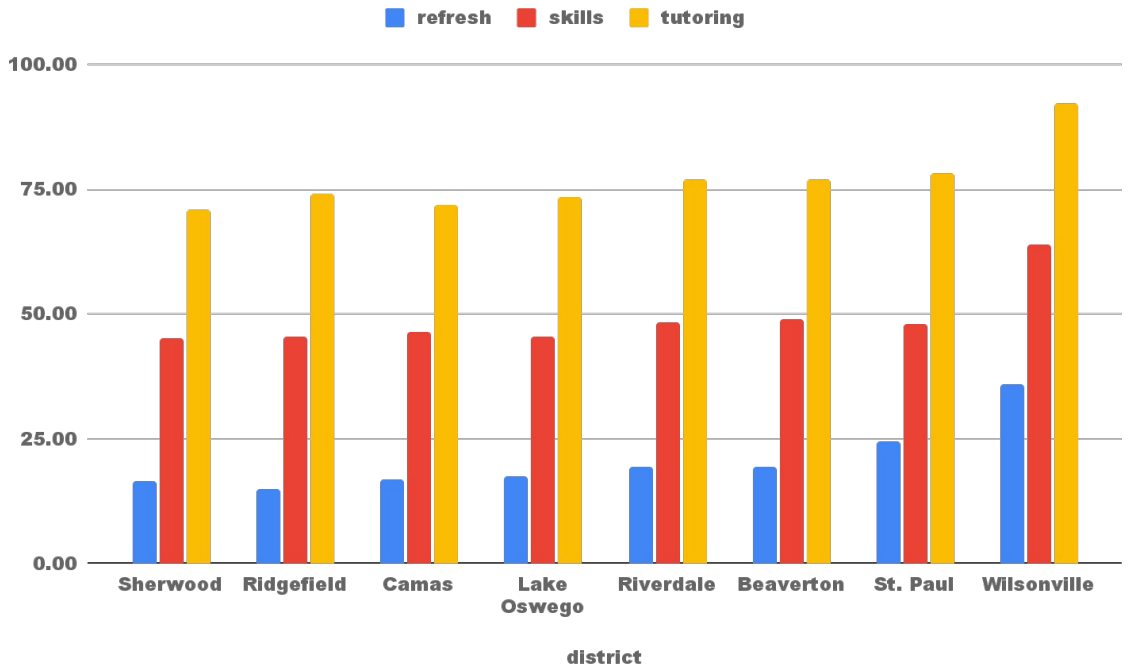
Turns out, **certain districts**, like St. Paul and Wilsonville, **improve in their scores drastically more** than Ridgefield.

The implication here is that the center should look into Ridgefield and other low-scoring centers to improve outcomes.



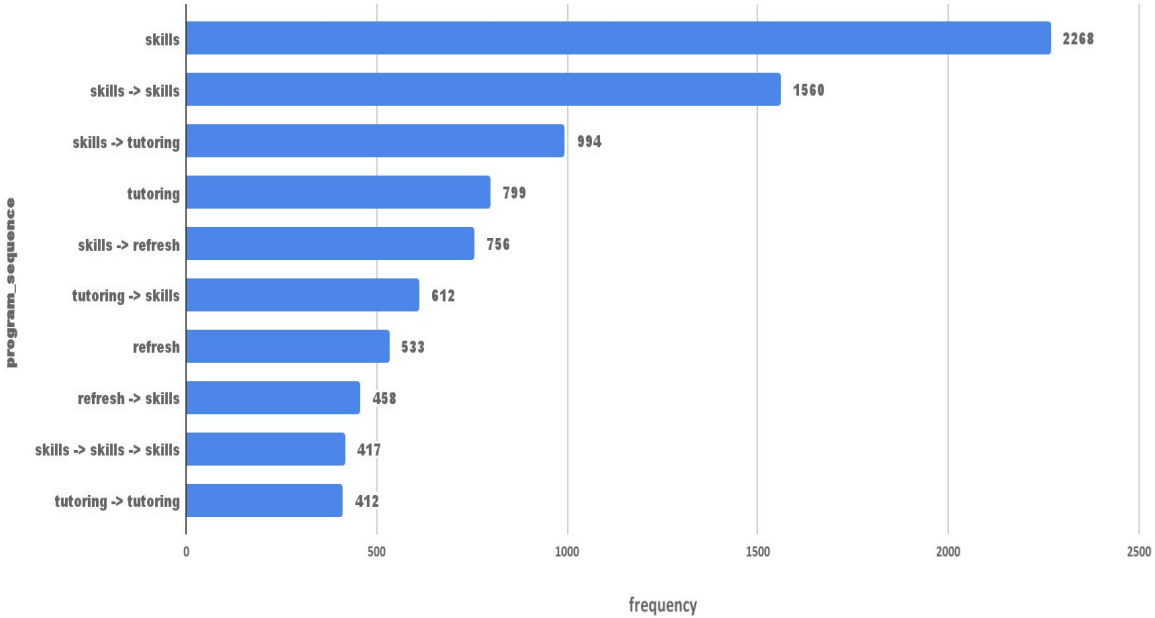
Program **Improvement** Differs Across Student Populations

Additionally, score **improvements per program also vary by school district**. Generally, overall top district score performers tend to stay consistently high across all programs, showing that there is no issue with any specific subjects in any of the areas.



Objective 2

Frequency for Each Path



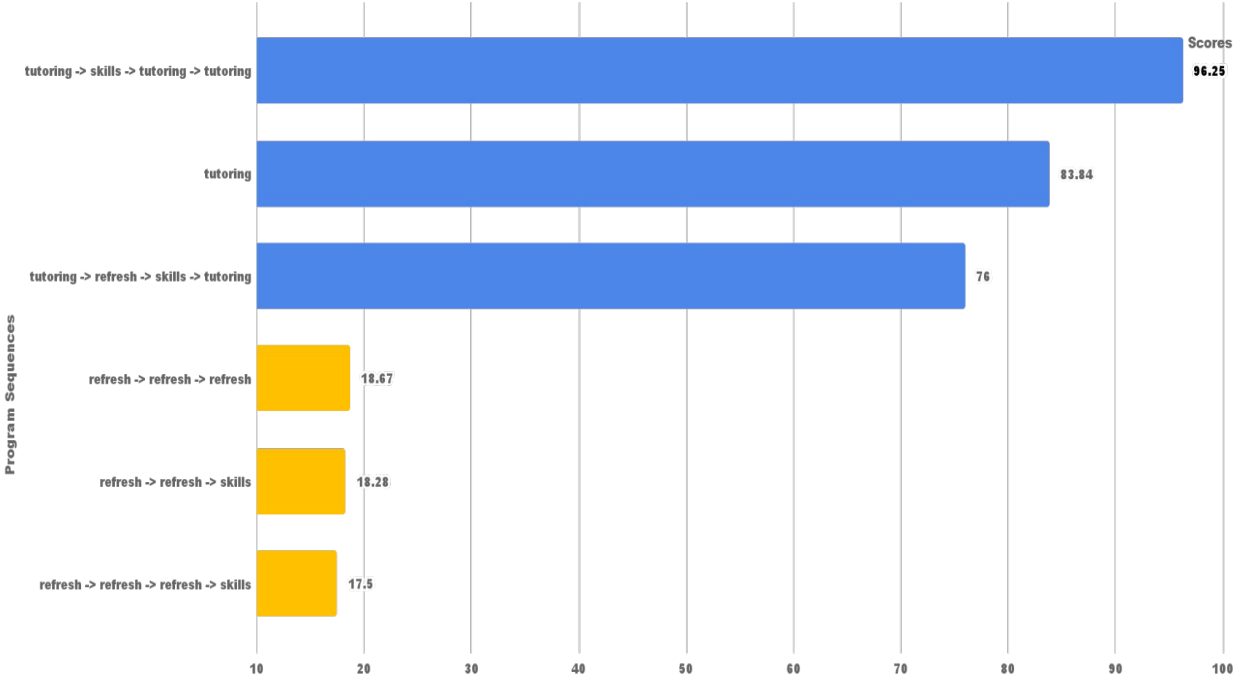
The frequency of educational program sequences shows a strong emphasis on skills development, with **'skills'** sessions being the most prevalent, indicating a primary focus on building foundational abilities.

The reduced frequency of combined **'skills'** and **'tutoring'** sequences suggests that while reinforcement and personalized instruction are valued, they are secondary to direct skills training.

The lesser occurrence of **'refresh'** indicates it's a less prioritized activity, reinforcing the trend of prioritizing new skill acquisition over review sessions.

Objective 2

Top & Bottom Three Paths by Total Average Score Improvement



'*tutoring -> skills -> tutoring -> tutoring*' path tops the chart with an average difference of **96.25 improvement** points, making it most effective for students.

Standalone *tutoring* also scores highly at **83.84 improvement**.

In contrast, sequences dominated by *'refresh'* sessions — potentially indicating review or reinforcement activities — are notably less effective, with the average differences falling between **17.5** and **18.67**, highlighting the superior impact of tutoring-led programs in educational outcomes.

Objective 2

Course Recommendation to Students Based on Desired Improvement and Course Load

High Improvement Paths (>60 points)

Desired Number of Courses to Take	Recommended Pathway	Average Expected Improvement
1	Tutoring	83.84
2	Tutoring→ Tutoring	67.41
3	Skills→Tutoring→T utoring	62.79
4	Tutoring→Skills→T utoring→Tutoring	96.25

Moderate Improvement Paths (30-60 points)

Desired Number of Courses to Take	Recommended Pathway	Average Expected Improvement
1	Skills	47.1
2	Skills→Skills	52.87
3	Tutoring→Skills→ Tutoring	55.39
4	Skills->Skills->Tuto ring->Refresh	58.8

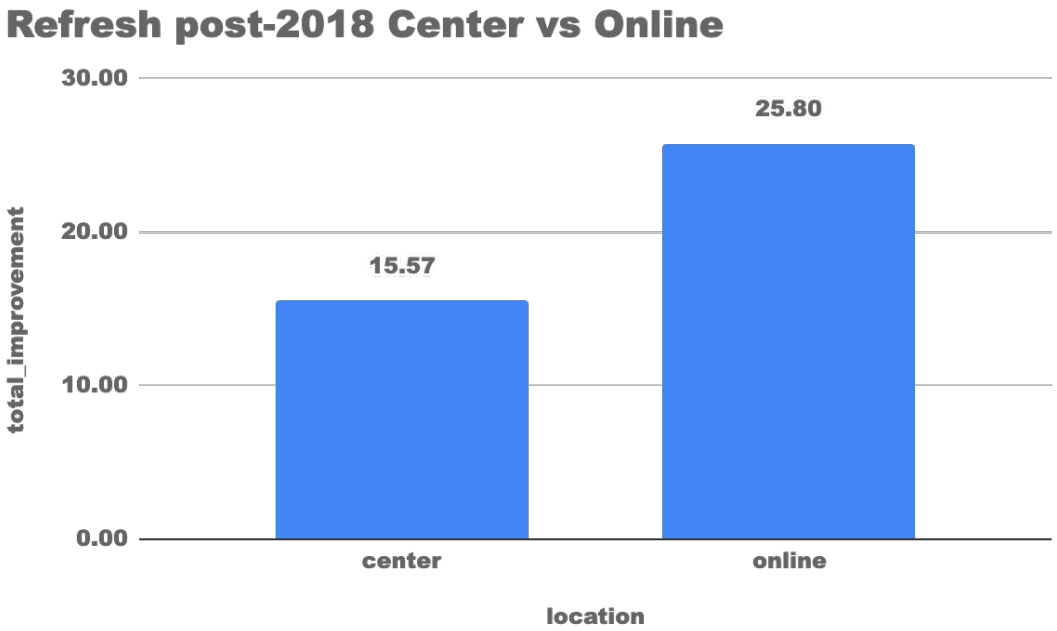
Minor Improvement Paths (<30 points)

Desired Number of Courses to Take	Recommended Pathway	Average Expected Improvement
1	Refresh	19.58
2	Refresh→Skills	28.05
3	Refresh→Refresh →Refresh	18.67
4	Tutoring→Refresh →Refresh→Skills	28.75

Refresh Online **Beats** Center in Average Score Improvement

We find that the **Refresh score improvement for online far outperforms the center**.

The substantial difference (over 10 points) suggests that the online mode is considerably more effective for the Refresh program, implying that the program content or delivery may be more suited to an online learning environment to maximize effectiveness.

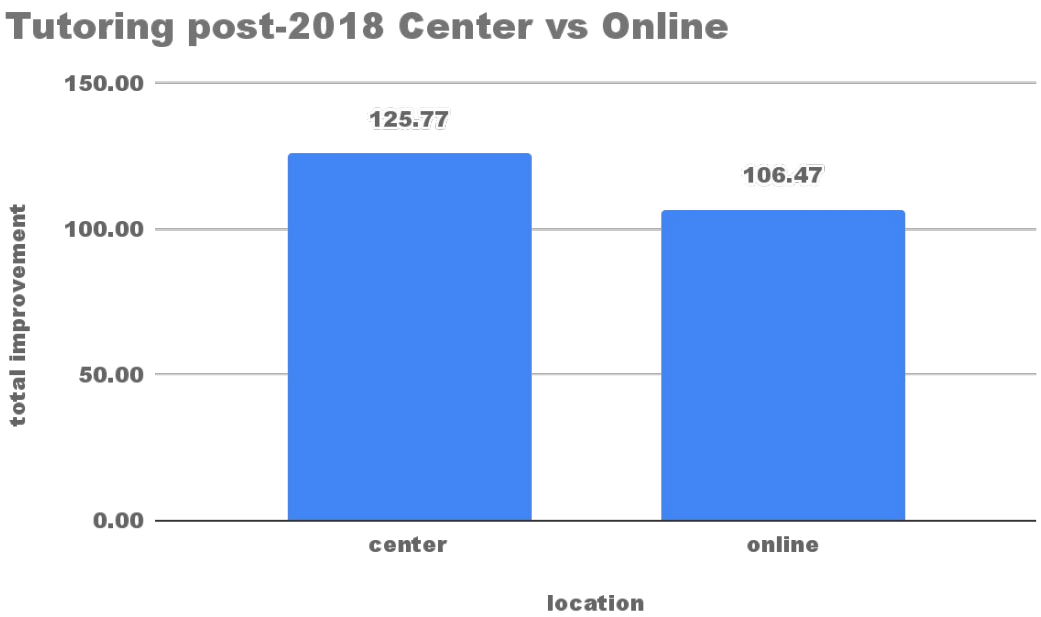


Online Tutoring is More Effective Through **in-Person Delivery**

In contrast, **tutoring turned out to lead to better score improvements when done in the center** compared to online.

This could be due to recent improvements in the tutoring faculty that teach more in the center (our assumption).

Another reason could be that tutoring requires more attention compared to Refresh, and, therefore, leads to better results when done in-person.



Recommendation:
Skills Should Expand to Online

We recommend that **Skills program should follow suit and be offered in online modality** along with the rest of the programs.

Although, as we saw, Tutoring hasn't been as effective in online delivery, Refresh online has seen great success.We offer several considerations:

1. Due to the **nature of the skills program**, which we assume is similar to Refresh program because of high theoretical focus, the Skills has potential to see an increase in score improvement.
2. Also, **online mode will offer greater flexibility**. Limiting times Skills currently offers might not work with student's schedules. Therefore, it would attract more students.
3. Lastly, having all programs in an online environment as an option would **unify the offerings** and allow students with disabilities or out-of-state to use the full program potential.

In Conclusion

1

Students' score improvement depends on which school district they belong to

2

Tutoring should be recommended to students needing highest improvement, and refresh for smaller improvements

3

Skills course should be introduced in online format