ABC Support Brief Research Report #7:

WCPM on the Same Passages Read during Pre-Training, Intervention, and Follow-Up Phases

Overview

By design, during the 2019-2020 pilot study, each student was administered a subset of 5-9 training passages during the ***pre-training period***. Pre-training included the baseline, teacher training, and orientation phases. The number of training passages administered during pre-training varied depending on the length of each student's baseline phase.

An ***intervention session*** focusing on each training passage occurred 3-6 weeks following pre-training. The time between pre-training and intervention varied depending on the length of each student's baseline. During each 20-minute intervention session, the student read the same training passage three times.

Finally, during **follow-up assessment** (3-5 days following the intervention session), the training passage was re-administered. This design feature (depicted in Figure 1) allowed for an analysis of students' growth (WCPM) from pre-training, across three repeated readings during an intervention session, to follow-up.[1]

Figure 1. Framework for Analysis of WCPM Across Five Readings of the Same Passage

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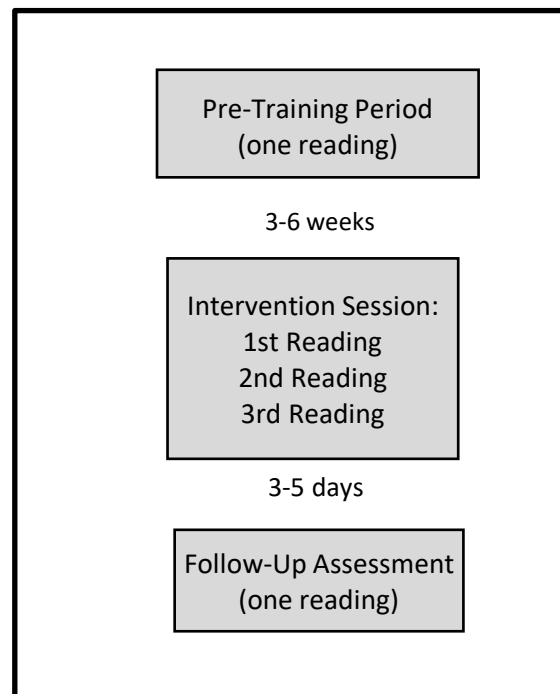
[1] A planned assessment of maintenance at 7 weeks post-intervention did not occur due to school closings because of the Covid-19 pandemic.

Individual Student Graphs

The graphs on the following pages display the WCPM for the subset of training passages we administered to each student[2] across pre-training (1x), intervention (3x), and follow-up (1x). An explanation of the measurement time points depicted in the graphs is provided below:

- **Pre-training:** WCPM for unaided reading of a training passage during pre-training (baseline, teacher training, and orientation phases).

- **1st reading:** WCPM for the first reading of a training passage during an intervention session *(3-6 weeks following pre-training)*. During each session, the first passage reading occurred following (a) a review of READ expectations; (b) goal setting; and (c) prompting of expectations. Normative growth in WCPM for second grade is 1.5 words per week[3]; therefore, across 3-6 weeks the expected gain in WCPM is 4.5 – 9.0.

- **2nd reading:** WCPM for the second reading of a training passage during each intervention session. The second reading occurred following (a) feedback, recording, and praise for 1st reading; (b) prompting; and (c) teacher demonstration of passage reading with interspersed student reading.

- **3rd reading:** WCPM for the third reading of a training passage during each intervention session. The third reading occurred following (a) reading error correction; (b) feedback, recording, and praise for 2nd reading; and (c) prompting.

- **Follow-up:** unaided reading of a training passage at follow-up *(3-5 days [~1 week] following the intervention session)*.

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[2] Student 05 refused to participate in pre-training and follow-up assessment of WCPM.

[3] Tindal, G., & Nese, J. F. T. (2013). *Oral reading fluency growth: A sample of methodology and findings*. Retrieved from http://ncaase.com/publications/in-briefs.

Student #01 WCPM Over Time for 5 Passages
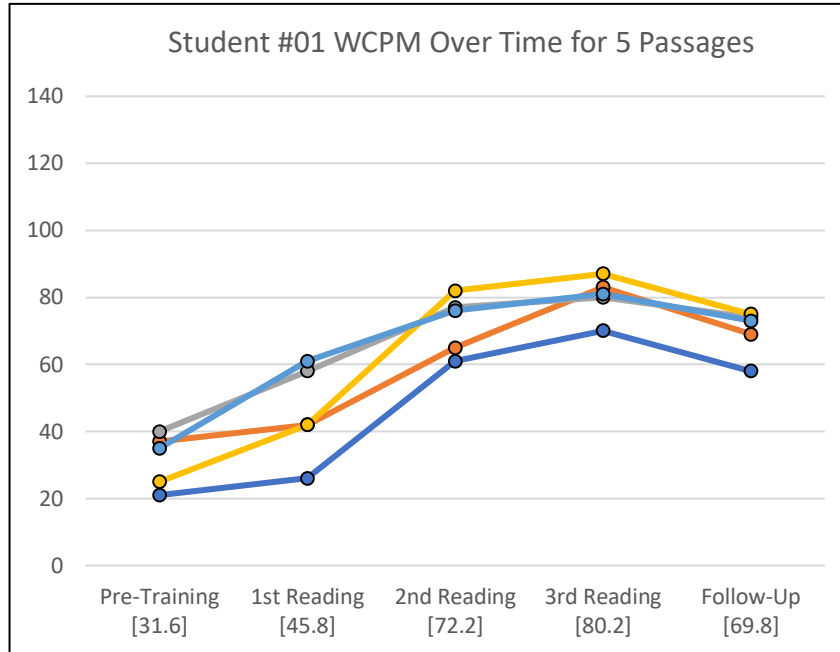
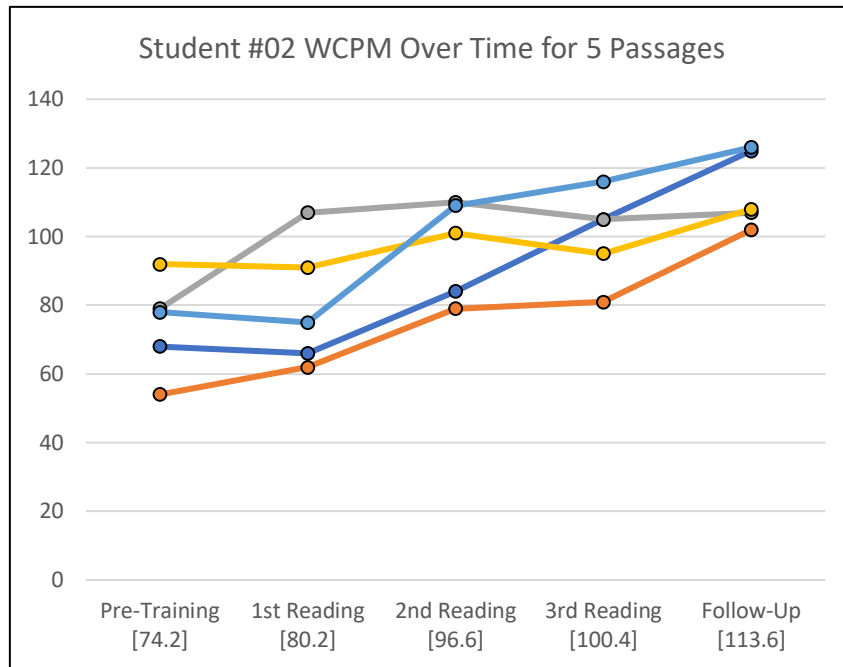Pre-training: average WCPM = 31.6 *(3 weeks prior to intervention)*

1st reading: average WCPM = 45.8
gain from pretraining = 14.2 *(expected gain = 4.5 WCPM)*

2nd reading: average WCPM = 72.2
gain from 1st reading = 26.4

3rd reading: average WCPM = 80.2
gain from 2nd reading = 8.0

Follow-up: average WCPM = 69.8
change from 3rd reading = -10.4

Pre-training to follow-up: +38.2 WCPM

Pre-training: average WCPM = 74.2 *(3 weeks prior to intervention)*
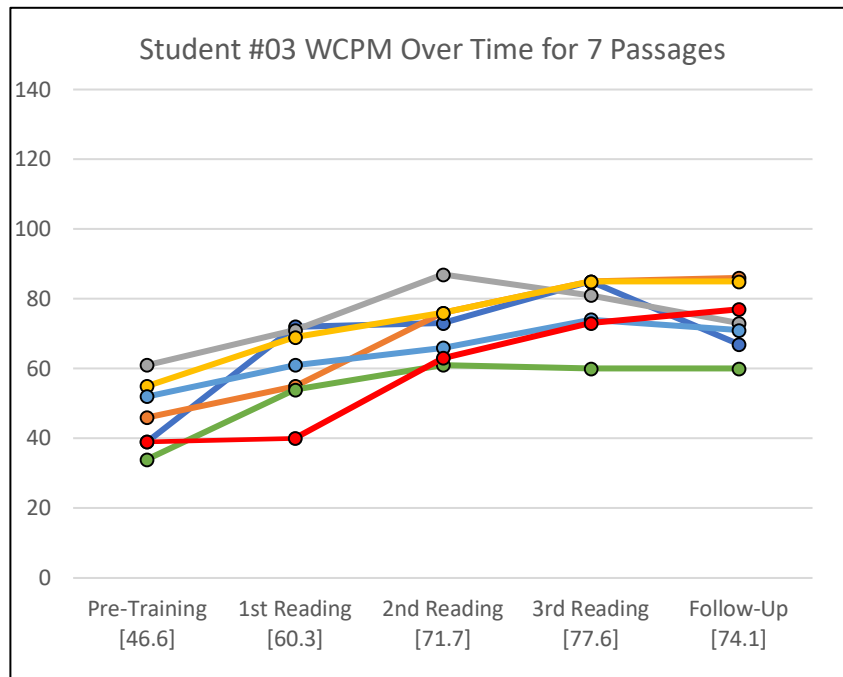
1st reading: average WCPM = 80.2
     gain from pretraining = 6.0 *(expected gain = 4.5 WCPM)*

2nd reading: average WCPM = 96.6
     gain from 1st reading = 16.4

3rd reading: average WCPM = 100.4
     gain from 2nd reading = 3.8

Follow-up: average WCPM = 113.6
     change from 3rd reading = +13.2

Pre-training to follow-up: +39.4 WCPM

Student #03 WCPM Over Time for 7 Passages

Pre-Training [46.6]	1st Reading [60.3]
2nd Reading [71.7]	3rd Reading [77.6]
Follow-Up [74.1]	

Pre-training: average WCPM = 46.6 *(4 weeks prior to intervention)*
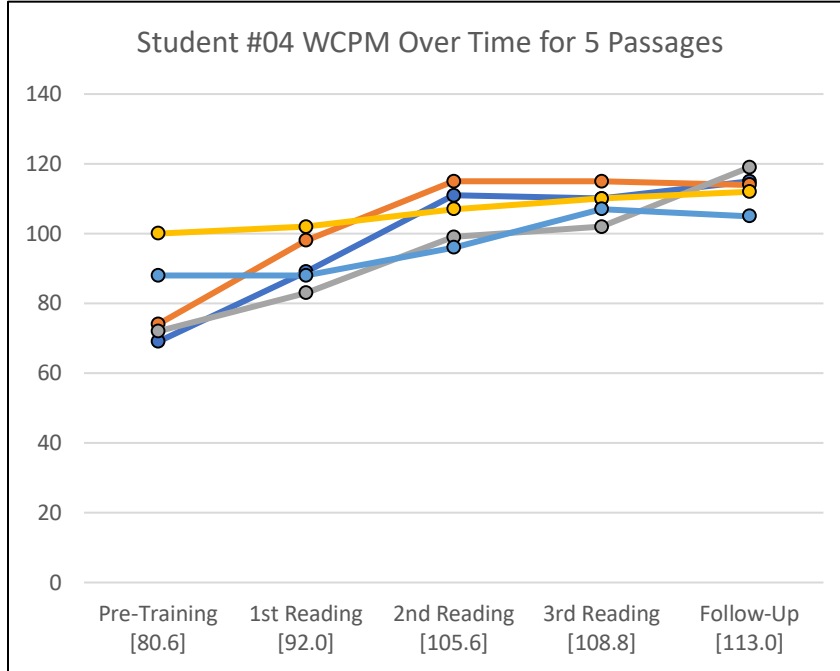
1st reading: average WCPM = 60.3
                       gain from pretraining = 13.7 *(expected gain = 6.0 WCPM)*

2nd reading: average WCPM = 71.7
                       gain from 1st reading = 11.4

3rd reading: average WCPM = 77.6
                       gain from 2nd reading = 5.9

Follow-up: average WCPM = 74.1
                       change from 3rd reading = -3.5

Pre-training to follow-up: +27.5 WCPM

Student #04 WCPM Over Time for 5 Passages

Pre-Training [80.6] · 1st Reading [92.0] · 2nd Reading [105.6] · 3rd Reading [108.8] · Follow-Up [113.0]

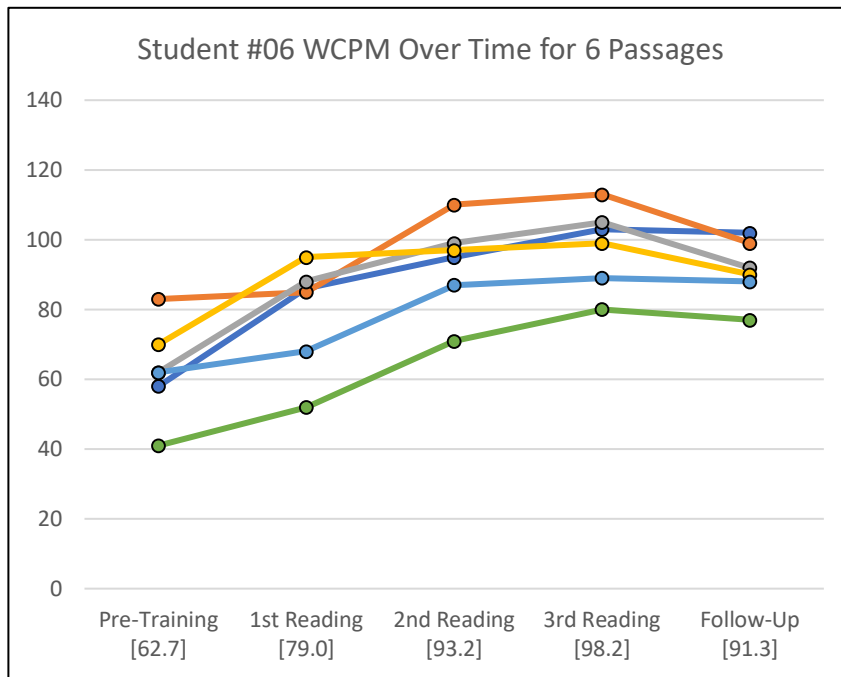Pre-training: average WCPM = 80.6 *(4 weeks prior to intervention)*

1st reading: average WCPM = 92.0
gain from pretraining = 11.4 *(expected gain = 6.0 WCPM)*

2nd reading: average WCPM = 105.6
gain from 1st reading = 13.6

3rd reading: average WCPM = 108.8
gain from 2nd reading = 3.2

Follow up: average WCPM = 113.0
change from 3rd reading = +4.2

Pre-training to follow-up: +32.4

Student #06 WCPM Over Time for 6 Passages

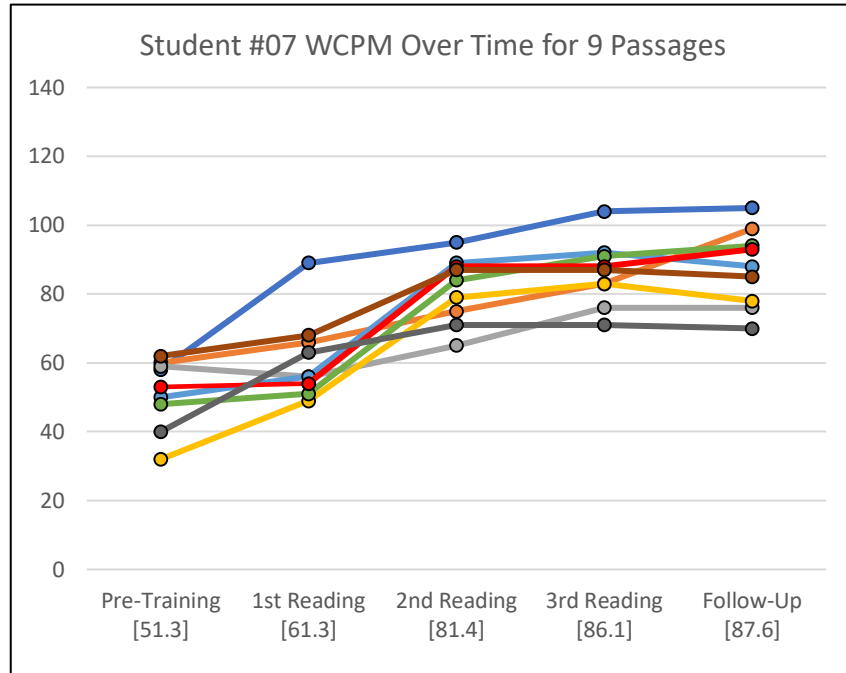Pre-training: average WCPM = 62.7 *(5 weeks prior to intervention)*

1st reading: average WCPM = 79.0
gain from pretraining = 16.3 *(expected gain = 7.5 WCPM)*

2nd reading: average WCPM = 93.2
gain from 1st reading = 14.2

3rd reading: average WCPM = 98.2
gain from 2nd reading = 5.0

Follow-up: average WCPM = 91.3
change from 3rd reading = -6.9

Pre-training to follow-up: +28.6

Student #07 WCPM Over Time for 9 Passages

Pre-training: average WCPM = 51.3 *(6 weeks prior to intervention)*

1st reading: average WCPM = 61.3
gain from pretraining = 10.0 *(expected gain = 9.0 WCPM)*

2nd reading: average WCPM = 81.4
gain from 1st reading = 20.1

3rd reading: average WCPM = 86.1
gain from 2nd reading = 4.7

Follow-up: average WCPM = 87.6
change from 3rd reading = +1.5

Pre-training to follow-up: +36.3

Summary

The average WCPM for training passages (a) at pre-training, (b) for three repeated readings during intervention, and (c) at follow-up are presented in Figure 2 below for each student participant. Four conclusions may be drawn from these findings:

1. During each *ABC Support* session, three combined intervention elements implemented *prior to* the first passage reading – specifically, a review of READ expectations, goal setting, and prompting of expectations – increased WCPM on the training passage *more than* the expected gain (i.e., > 1.5 words per week).

2. During each *ABC Support* session, the greatest gain in WCPM occurred between the first and second passage reading, following the implementation of three intervention elements – specifically, feedback/recording/praise for 1st reading, prompting, and teacher demonstration of passage reading with interspersed student reading.

3. Three students demonstrated an increase in WCPM from the intervention session to follow-up assessment; three students demonstrated a drop in WCPM at follow-up.

4. Across all students, the average gain in WCPM from pre-training to follow-up was 33.7. Depending on the length of each student's baseline condition, the number of weeks between pre-training and follow-up assessment was 4-7. The expected growth in WCPM across 4-7 weeks is 6.0 to 10.5 WCPM.

Figure 2. Average WCPM Across Pre-Training, Intervention (Three Repeated Readings), and Follow-Up
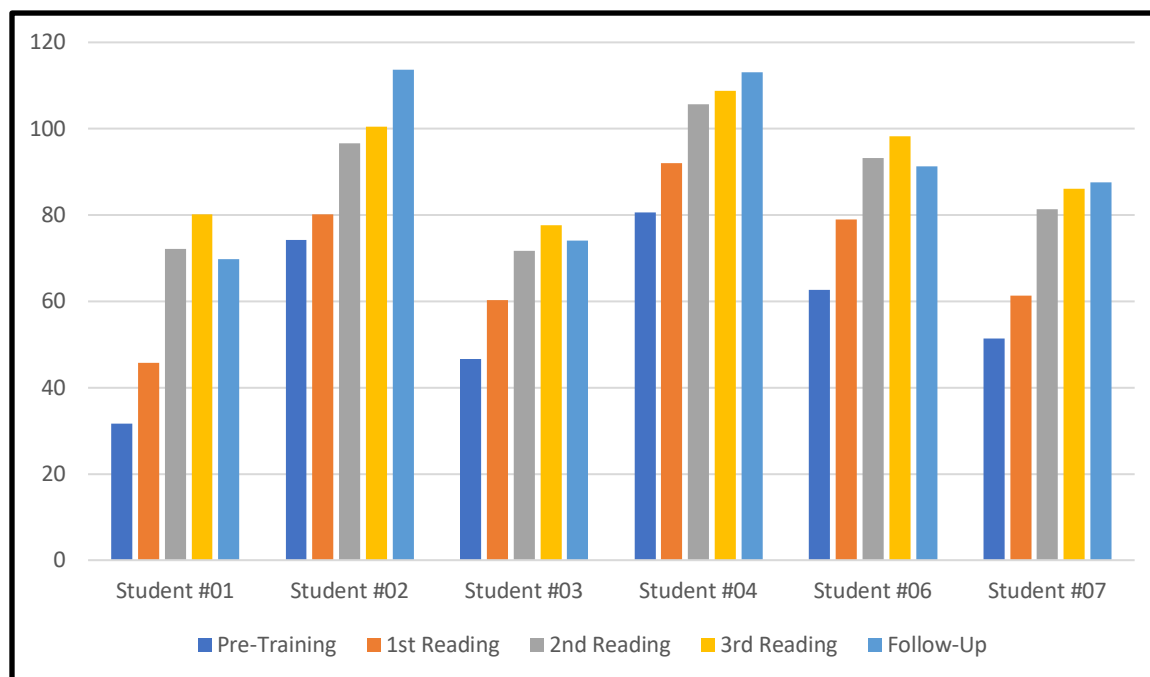
Gettinger, M., Kratochwill, T. R., Eubanks, A., Foy, A., & Lindner, A. (2020). *ABC Support Brief Research Report #7: WCPM on the same passages read during pre-training, intervention, and follow-up phases.* Wisconsin Center for Education Research, University of Wisconsin-Madison.