Reading Interventions for Four Students With Learning Disabilities

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The ability to read greatly influences students' academic careers and their entire lives. Furthermore, those who have successfully progressed through the continuum of reading behaviors will potentially experience fewer problems when they must read to learn than students who have not mastered basic reading skills. However, students with special needs often struggle with all aspects of reading, from developing phonemic awareness to comprehension (Chard, Ketterlin-Geller, Baker, Doabler, & Apichatabutra, 2009). Practitioners and researchers have demonstrated that using precision teaching techniques will facilitate the improvement of reading behaviors (e.g., Anderson & Alber, 2003; Sweeney, Ring, Malanga, & Lambert, 2003).

Kaleena, a third-grade learning support teacher, implemented a reading intervention for four of her students with specific learning disabilities. Since three of these students (Sally, Lori, and Tina) could read connected text, Kaleena chose a pinpoint of see/say words per minute on reading passages at their independent reading levels. Their aim was 200 correct words per minute (CWPM), with 2 or fewer incorrect words per minute (IWPM), across 2 days (dashed lines on Figures 1, 2, and 3). Ben, the fourth student, who also had a speech language impairment, had yet to advance to connected text. For him, Kaleena therefore chose a pinpoint of see/say letter sounds with an aim of 100 correct sounds per minute (CSPM), with 2 or fewer incorrect sounds per minute (ISPM), across 2 days (dashed lines on Figure 4). Reading passages and letter sound sheets originated from various Internet sources (e.g., www.precisionteachingresource.net). Although the students did receive small- group reading instruction, reading practice and timings occurred in a one-on-one format. This program was implemented in mid-January 2010.

Each figure displays individual student outcome data. Dots on Figures 1, 2, and 3 represent CWPM; on Figure 4 they indicate CSPM. The X's denote incorrect sounds and words per minute. Dashed lines occurring at either 200 (Figures 1, 2, and 3) or 100 (Figure 4) represent correct word or sound- per -minute aims, respectively. The dashed line at 2 on all charts shows the incorrect word or sound per- minute- aim. As the open circles on the bottom of each chart show, students had the opportunity to read multiple times at each session. Sally, Lori, and Tina participated in a repeated reading intervention, with multiple practice components. Before the initial reading of a passage, Kaleena modeled and then asked each student to repeat any difficult words. As a warm-up, students then read the passage for 10 seconds (i.e., sprinted; Kostewicz & Kubina, 2010), starting from the first word. Although Kaleena did not score or chart this reading, she provided error correction in a model-lead-test format. Students then read the passage three times, each for 1 minute, with the instruction to read as fast as possible. Kaleena again provided error correction after each reading. Upon completion of the third reading, and with each student's assistance, Kaleena graphed the final reading score on each student's chart. Ben, the student working on letter-sound fluency, received a similar intervention. Kaleena asked Ben to preview all 8 letter sounds randomized across the practice sheet, and Ben sprinted for 10 seconds. Following the sprint and error correction, Ben read the sheet three times, each for 1 minute, and he received error correction after each attempt. Each day, Ben and Kaleena graphed his third timed score.

Twins Sally and Lori (Figures 1 and 2, respectively) demonstrated similar performance over the course of the intervention. Sally (Figure 1) initially read the first passage at 61 CWPM with 1 IWPM. Her CWPM (x1.25) and IWPM (x1.10)

accelerated until she reached aim on Day 33, with a score of 212 CWPM and 0 IWPM. On the second passage, Sally read 81 CWPM with 1 IWPM, and she accelerated both CWPM (x1.20) and IWPM (x1.18) during this phase.

Figure 2 shows Lori's reading performance, which in some ways resembles her sister Sally's progress. From an initial read of 75 CWPM and 1 IWPM, both Lori's correct (x1.17) and incorrect (x1.10) words per minute accelerated across the first phase. Lori met aim on Day 36, with a score of 248/1 (CWPM/IWPM). Lori's IWPM in the second phase not only jumped down (÷1.63), but also turned down (÷1.21) to a deceleration of ÷1.10, whereas her CWPM accelerated at x1.20, meeting aim for a second time on Day 65 with 215/1.

Sally and Lori exhibited a competitive nature throughout the intervention. Often asking for and sharing their daily scores, each sister appeared motivated by the other's successes. For example, on the first passage, Lori met aim 1 day after Sally, with her highest read: a CWPM frequency jump of x1.40. Sally's and Lori's reading scores remained similar during the second passage. However, the girls unexpectedly moved out of the district, so that further advancements could not be tracked.,

Tina (Figure 3) had a more difficult time reaching aim than the twins. Although she read the same first passage as Sally and Lori, Tina made very little improvement, with accelerations of x1.08 and x1.12 to her CWPM and IWPM, respectively. Because many of Tina's errors persisted in spite of error correction, Kaleena underlined difficult phrases with a yellow highlighter on Day 45. In response, Tina's IWPM turned down (÷1.15) to a deceleration of ÷1.03 and she reached aim on Day 99. Although Tina did not reach aim on the second passage, her CWPM turned up (x1.12) to an acceleration of x1.15. Kaleena observed that Tina made seemingly careless mistakes in a rushed attempt to meet aim on the second passage before the end of the school year. This behavior accounted for much of Tina's IWPM acceleration (x1.23).

Unlike the previous three students, Ben (Figure 4) did not meet aim. Before using the 8-letter sound sheet, Kaleena verified that Ben knew each of these 8 letter sounds. Ben's performance across the initial phase accelerated for both CSPM (x1.05) and ISPM (x1.25). Recognizing Ben's frustration and slow progress, Kaleena decided to make slight changes to the procedures on Day 61. She reduced the counting time to 30 seconds, reduced the aim to 50 CSPM and 1 ISPM per 30 seconds, and dropped the number of trials from 3 to 2. Following these practice changes, Ben demonstrated a CSPM jump of x1.23 and an ISPM turn of ÷1.33 to a deceleration of ÷1.1. Despite this success, Ben's CSPM accelerations of x1.05 during both phase one and two suggest that additional practice changes are needed.

Originally, Kaleena set out to supplement her students' reading instruction with fluency practice in different reading skills. Sally and Lori had seemed to benefit from the experience. On the other hand, Tina's and Ben's gradual progress led Kaleena to make individualized changes to their practice procedures. The slight alterations helped Tina to reach aim and Ben to decrease errors. Even though Kaleena could have made additional changes to prompt greater gains, all four students displayed enthusiasm and pride in their successes. These attitudes seldom appear during the first half of the year.

References

Anderson, L. L., & Alber, S. R. (2003). Precision teaching in a day treatment facility. *Journal of Precision Teaching and Celeration, 19*, 35-37.

Chard, D. J., Ketterlin-Geller, L. R., Baker, S. K., Doabler, C. & Apichatabutra, C. (2009). Repeated reading interventions for students with learning disabilities: Status of the evidence. *Exceptional Children, 75*, 263-281.

Kostewicz, D. E., & Kubina, R. M. (2010). A comparison of two reading fluency methods: Repeated reading to a fluency criterion and interval sprinting. *Reading Improvement, 47*, 43-63.

Sweeney, W. J., Ring, M. M., Malanga, P., & Lambert, M. C. (2003). Using curriculum-based and repeated practice instructional procedures combined with daily goal setting to improve elementary students' oral reading fluency: A pre-service teacher training approach. *Journal of Precision Teaching and Celeration, 19*, 2-19.

Figure 1. Sally's See/Say Words

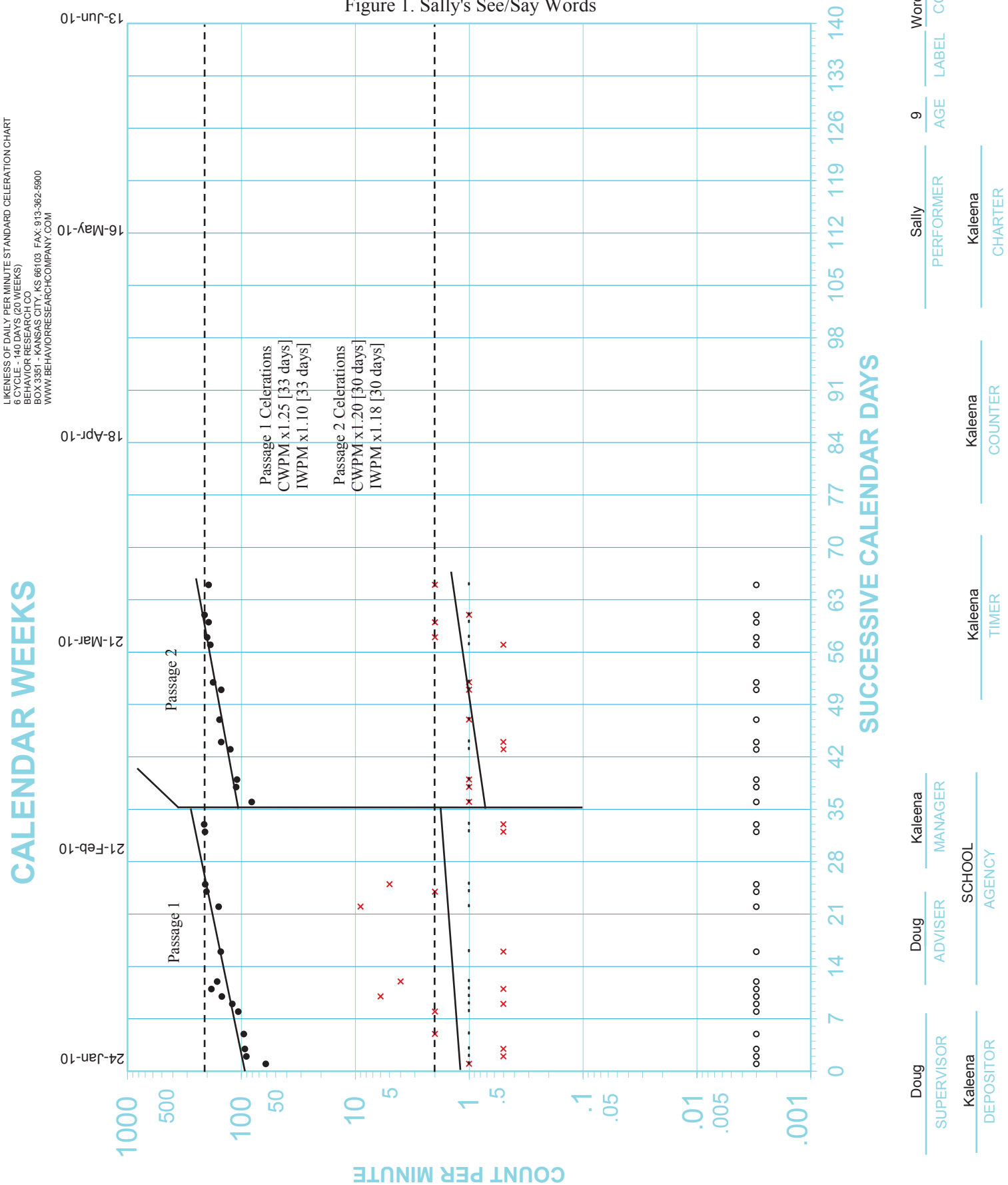
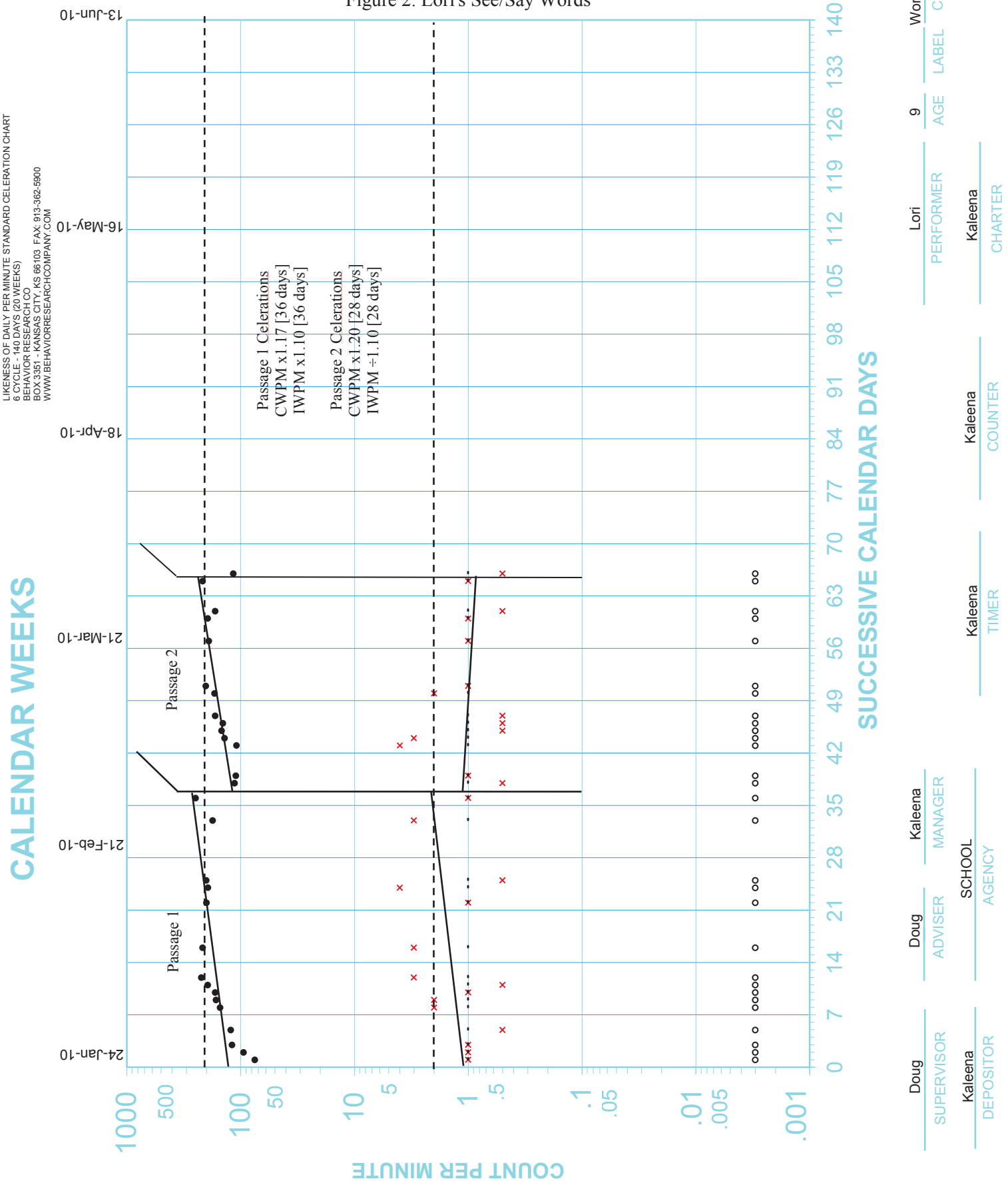


Figure 2. Lori's See/Say Words



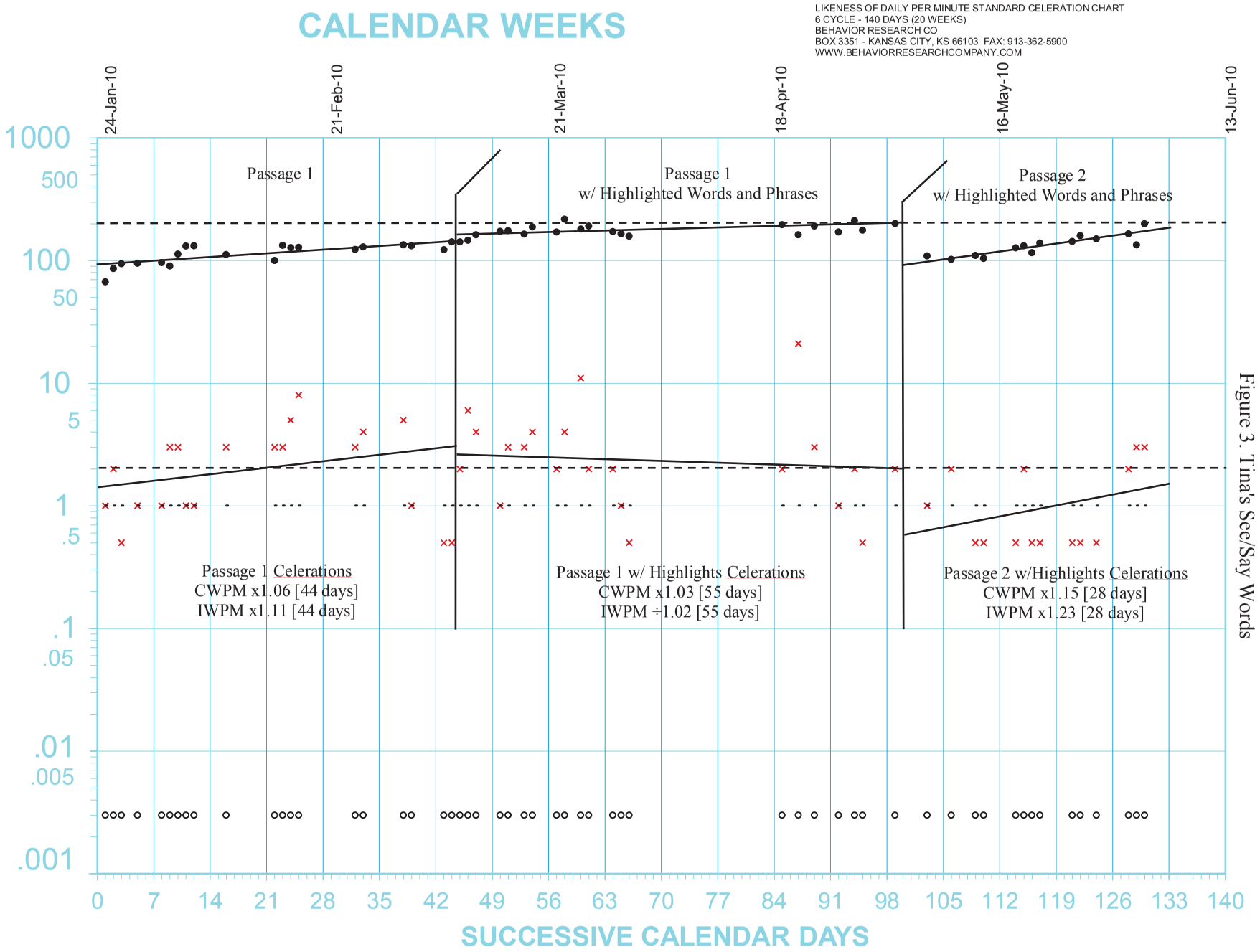


Figure 3. Tina's See/Say Words

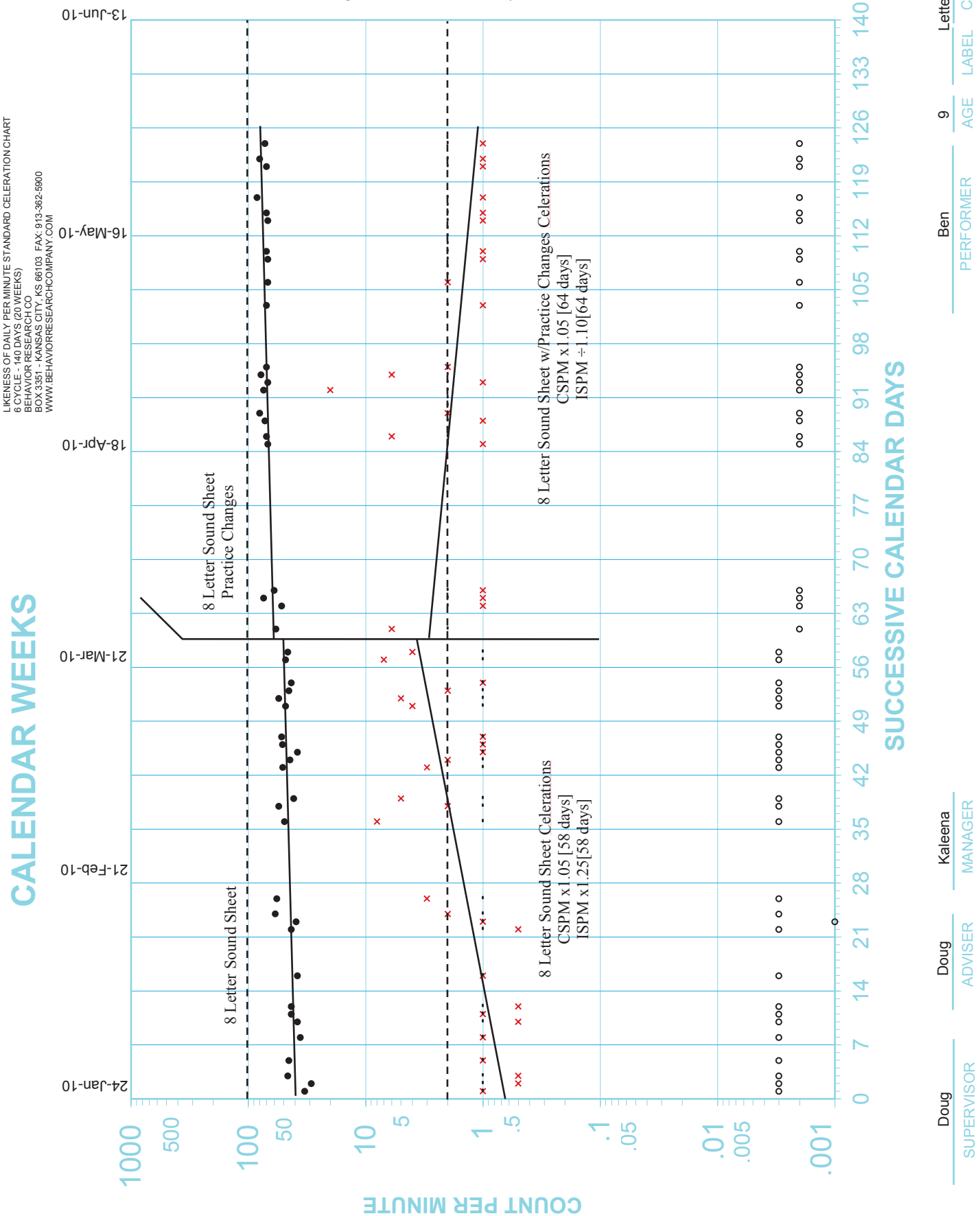



Figure 4. Ben's See/Say Letter Sounds