Leaf’s Chart
Abigail B. Calkin
Morningside Academy

Cheryl Red Elk & Kenarahdiyoh (Leaf) Minear
Riverside Indian School

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Mrs. Red Elk, Leaf, and I wrote this chart share article in four parts. I wrote the introduction on Precision Teaching in education. Mrs. Red Elk describes how she got involved with Precision Teaching. Leaf says why he started to do the vocabulary timings differently from the way Mrs. Red Elk, his teacher, had initially told him. Finally, I give a summary of Leaf’s remarkable achievement and Michael Fabrizio closes with a commentary.

Precision Teaching Background
Abigail B. Calkin

In the early 1950s, Ogden Lindsley became the first person to measure human behavior continuously, and he continuously measured and researched its frequency and growth. He took lessons learned from pigeons and rats in Skinner’s operant laboratories into his home and continuously recorded the toy playing behavior of his infant daughter, Kathy (Babe in a Box, 1952). He also began to measure the behavior of schizophrenics at Metropolitan State Hospital in Waltham, Massachusetts, and coined and first published the term “Behavior Therapy,” in 1954 in the Boston telephone directory: Studies in Behavior Therapy (Lindsley, 1999). In 1965, he developed what was first called the Standard Behavior Chart, now more accurately described as a family of Standard Celeration Charts—five standard measurement charts for human behavior in minute, daily, weekly, monthly, and yearly time period formats. Its primary use continues to be charting learning and change in public and private education, preschool through university.

The first daily Standard Celeration Chart, then called the Standard Behavior Chart, began regular use in the public schools in 1967. Eric Haughton in Eugene, Oregon first came up with the idea and use of the 1-min timing (H. Kunzelmann, personal communication, October 10, 2004). Since 1968, the 1-min timing has come into common use in the school environment. With the development of the Timings Chart, the use of the 30, 15, or 10-sec timing has also become frequent in special and regular education classrooms.

Riverside Indian School in Oklahoma, and Morningside Academy in Seattle, Washington work together to provide improvement in reading at Riverside. Leaf is an eighth grade student in Mrs. Red Elk’s reading class. There are also sixth and seventh graders in the class. Mrs. Red Elk had her students doing 1-min timings of See Say prose in the Scott Foresman reading series and 10-sec timings with vocabulary words. The students wrote the vocabulary words on flash cards, then practiced reading and defining them in two separate timings. Such flashcards are called SAFMEDS, an acronym for Say All Fast Minute Every Day Shuffled.

One day in December 2002, Mrs. Red Elk asked me if it was all right to do the timing in a different way. Of course!, I said. It seems Leaf was not happy with his frequency of words defined per minute.

Morningside Reading
“How It Has Invaded My Classroom”
Cheryl Red Elk

I am not a reading teacher and have never had a desire to be one. The work is too hard and the responsibility too great. I am a math teacher (just the facts, ma’am). However, our school has incorporated this program and I have had to deal with a new situation which has not been a personal favorite of mine. I love to read for pleasure. I read as many books as time, or the eyesight, will allow. But to have the rigorous design of this reading program placed in my lap, has been quite a trip.

My students are among the highest reading group in our section. When working on the see/say word timings, students began to complain that they could not turn the cards over quick enough. I told them to improvise. One student laid his cards all on the table and read them as he was being timed. He did quite well. It is easier to facilitate and let them devise their own techniques. Many other techniques had to be revised to fit me, (as I may be old and set in my ways). The charting is done by the counselor
recited them to get a higher score. The program has really helped my reading and vocabulary skills improve. The program has really helped me.

Leaf’s Chart
Abigail B. Calkin

Figure 2 shows Leaf’s Timings Chart. The timings were 10 seconds long. During two of the nine sessions, session one and session seven, Leaf read words in a list. His frequencies ended up well over the aim of 80-100 words read per minute. Sessions two through six and sessions eight and nine are See Define, where Leaf would see the word and say the definition.

What makes this chart noteworthy is the steepness of the celerations, at least six of the nine celerations.

Sessions 1 and 7 are words read per minute in a list. As such, they do not belong on the SAFMEDS vocabulary Timings Chart. However, because Mrs. Hamilton, the manager of the project, put them on this chart, they remain there. As an academic curriculum technician at Riverside Indian School, she was in charge of the charted learning in the classroom. (In other school districts, her position is often called paraprofessional or educational aide.) Indeed, the academic technician, as she wants things done a specific way. Students give her their timed recordings and she charts them. She then talks to the students about their see/say prose and their vocabulary timings.

I know the students are doing well, but I do not know if it is in spite of me. They are a good group and are very cooperative, so I know they put their best effort in it.

What I Did to Improve
Leaf Minear

To get a higher score I set my cards on the table because my friend wouldn’t flip the cards fast enough. So I laid the cards on the table.

(Because of the brevity of this statement Leaf wrote in 2003, Calkin decided to ask him to write it again with more detail. He easily and happily obliged in April of 2004 with the paragraph below, writing as if he were still an eighth grader. See Figure 1)

My name is Kenarahdiyoh Minear (Southern Cheyenne and Arapaho). I’m currently an eighth grader at Riverside Indian School and I’m on the Morningside program. When we started doing vocabulary flashcards my friend, Robert, wasn’t flipping the cards fast enough. So I laid them across the table and recited them to get a higher score. The program has really helped my reading and vocabulary skills improve. The program has really helped me.
curriculum technicians are that—highly trained technicians in charge of supporting the classroom academic curriculum.

Leaf’s chart jumped out of hundreds of other Timings Charts because his celerations were consistently steeper than most others I had seen. The slope of his See Say prose words is x8 and x3, good for consecutive timings, tripling from an initial timing of about 55 words per minute to about 160 words per minute in about 20 school days, and exceeding the aim of 80-100 per minute.

As Leaf stated in his comments above, during his reading of the SAFMEDS his partner turned his cards too slowly. It is better for the person reading the cards to turn them himself because he can judge better when to turn the card. However, Ken did one even better: he laid the cards out in front of himself so there was no possibility of even that delay. The celerations of sessions 3 and 6 are not particularly steep, no greater than x1.4. The celerations of sessions 2, 4, 5, 7, 8, and 9 are definitely steep, ranging from x3 to x5.

Commentary
Michael A. Fabrizio

On February 10, 2003, while driving between client appointments in the Seattle area, I phoned my friend Abigail Calkin. I knew Abigail was traveling away from her home while she consulted with schools for Morningside Academy, and I thought she might like to hear a familiar voice while on the road for business. During my conversation with Abigail, she told me some of the work she had been doing while on her trip, and she read me Cheryl Red Elk’s thoughts on using the Standard Celeration Chart as part of the Morningside Model of Generative Instruction. As I listened to Abigail read Cheryl’s statement, two things struck me: as a teacher, Cheryl was less than enthused about teaching reading, but even given this reluctance the Standard Celeration Chart proved a powerful ally for Cheryl. While she may not have embraced teaching reading with open arms, Cheryl displayed one of the most important characteristics that any teacher can display—she was willing to change what she was doing based on her students’ performance data. In her description of how her students modified the way they practiced their vocabulary SAFMEDS, we see Cheryl’s willingness to adapt how she taught to fit the needs of her students, and to do all of this based on student performance data. My congratulations to Cheryl Red Elk and all of her (very lucky) students!

REFERENCES
Babe in a Box. (1952, May 2). Newsweek, 97-98.
Figure 2. Ken's (Leaf's) chart of SAFMEDS vocabulary words.