Four of Ogden Lindsley's Unpublished Presentation Summaries

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As one might expect from the founder of Precision Teaching, Ogden Lindsley was precise in creating the summaries of his presentations. Ogden took the opportunity to share his latest thinking on a topic in his presentations. However, because the presentation summaries have not been published, many people have missed the advantage of this knowledge. At the request of Rick Kubina, JPTC editor, I agreed to write my reaction to four of Og's presentations. These summaries cover presentations between May 1999 and October 2001. One summary discusses the connection between the Suzuki music teaching system and Precision Teaching, four summaries are related to autism, and the last summary addresses the role of Precision Teaching in decision making.

Gifts From Precision Teachers to Suzuki Teachers.

(Lindsley, 1999a - See Appendix A) The Suzuki Method is a music education system established in the 1940s by the Japanese educator and musician Dr. Schinichi Suzuki. It emphasizes listening, imitation, and repetition in building skill, knowledge, and character.

Og's presentation summary suggests some commonalities between Precision Teaching and the Suzuki Method and the benefit Precision Teaching might offer to the Suzuki Method students. Pitch notation is particularly noteworthy since it is represented on a multiply-divide frequency scale and aligns with the Standard Celeration Chart. As a result the SCC is a good fit for monitoring the progress of students of the Suzuki Method or any other music education system.

Another highlight for me in this summary is that both Precision Teaching and the Suzuki Method emphasize fluent performance. Music and athletics are two fields that understand the importance of moving beyond 100% correct performance to fluent, accurate performance. In school settings, asking music teachers and coaches to share their understanding and practices on fluency development with classroom teachers could be the "aha breakthrough" that would support the teachers' willingness to incorporate fluency-focused measurement and instruction into their classrooms.

Two Related Presentations on Autism

(Lindsley, 2000 & 2001 - See Appendices B & C) The two autism presentation summaries have a good deal of redundancy, since they had been presented at state and international ABA events in 2000 and 2001. Og emphasizes the need to avoid SLOBS (i.e. Slower, Louder, One at a Time, Bigger, Simpler) teaching procedures; the importance of what he called the "free operant freedoms"; the importance of foundation motor skills (aka Big 6 + 6); the critical importance of early intervention; and the power of shaping through clicker training.

For children with autism (and all other children), Og suggests instruction emphasizing a pattern that is more likely to be effective: Faster, Softer, Many, Smaller and Full Complexity' The SLOBS discussions re-emphasize the importance of viewing frequent, direct records of performance instead of relying on logic or conventional practice.

Education continues to be largely a methodically driven profession. Teachers are trained to employ particular methods and to follow prescribed curricula rather than monitoring student learning and using this to guide decisions on adjusting the program.

The "free operant freedoms" highlight the significance of student choice/interest (The Child Knows Best) in promoting student participation. We Individuals tend to choose events that they expect to be reinforcing and/or have a previous history of reinforcement. This relates to the matching law that people make choices related to the rates of reinforcement(see Fantino, 2008).

The emphasis on the Big 6 (reach, point, touch, grasp & release, place) + 6 (push, pull, shake, squeeze, tap, twist) reminds us of the importance of these foundational motor skills. For many children with autism, the lack of mastery of Big 6 + 6 skills is a major impediment to their progress in higher-level skills.

Og recounts the power and critical need for early intervention, as Ivar Lovaas's work showed. Lovaas demonstrated that with early intervention, autistic symptoms can be reversed for some children and their impact mitigated for others. Recent work related to brain development and plasticity (see Neville, 2009) documents the importance of critical early stages in creating cognitively competent brains.

Og also reminds us of the importance of shaping (aka Clicker Training, TAGteaching), particularly with children who have significant cognitive difficulties. The click is a "sharp response definer" that does not require elaborate cognitive engagement.

Precision Teaching With Session and Across Session Decisions

(Lindsley, 1999b - See Appendix D) In this summary, Og mentions his current method of teaching the SCC. Two points are important to note. One relates to using multiple channels in learning the chart (e.g., See + Hear/Say + Point). The multi-sensory, multi-response format provides good modeling for supporting student learning in other areas. Second, the experience of learning a skill/concept with a kinesthetic dimension creates a nice mind-body connection. People can intellectually understand frequency and celeration; but adding the body sensation of different frequencies and celerations, as well as "feeling" the differences between the two measures, seems to deepen our understanding and retention.

Og also reminds us that using celeration aims not just frequency (fluency) aims, is central to decision making. The emphasis on at least x2 (or ÷2) change within a session (on timings charts) and across sessions (on the daily charts) ensures significant growth. In fact, x2 growth consistency corresponds with our subjective perceptions of improvement. (i.e., without data, we perceive, see, and hear differences in performance) (see Starlin, 2009). The complementary nature of such subjective and objective information provides a "social validity" to learning outcomes.

As is true of many great thinkers, Ogden continued to be productive throughout his life. These six presentation summaries provide a glimpse into areas that Og emphasized near the end of his career.

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Gifts from Precision Teachers to Suzuki Teachers

Ogden Lindsley

Things we share

- **Accentuate the Positive,**
  Eliminate the Negative,
  Latch on to the Affirmative
  Don't mess with Mr. In between (%)
  "Celerate then Celebrate"
- Daily practice
- Proceed up curriculum at own pace
- Coaching
- Choral responding led by teacher
- Perform at own pace and rhythm
- Perform well beyond accuracy to speed (Fluency)
- Fluency gives learners confidence

PT gifts to Suzuki approach

- Multiply world view (Music scale)

32	64	128	256	512	1024	2042
C	C	C	C	C	C	C
			mid C			

bass tenor soprano
baritone contralto

- Because music lives in the multiply world it would be good to chart practice and performance on a multiply chart
- Suzuki approach has standard performance skills, standard practice materials, standard methods, and standard music. Standard performance charts will save Suzuki learners and teachers even more time

PT gifts to Suzuki center directors

- Compare charts of different teaching methods to research their effects and maintain quality
- Collect charts to summarize a center's teaching effectiveness
- Track a center's growth on standard weekly and monthly charts

PT gifts to Suzuki teacher trainers

- Don't mess with Mr. In Between (%)
  "Percent is the worst thing that ever happened to Education!"
  (Holzschuh, 1967)
- Chart teacher's Suzuki teaching skill by counting correct and incorrect Suzuki coaching acts and chart them on standard charts instead of using teacher skill rating scales and percent of time spent on skill

PT gifts to Suzuki learners

- When you have difficulty with a selection,
  practice only one minute timings of the troublesome part
  If you still have problems practice brief 10 second sprints
- Record your own correct and error counts right after each performance
- Divide your counts by the performance time taken to get your frequency

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File code: WrdD41-Gifts Pt to Suzuki

- Chart your daily frequency on Standard Celeration Chart to track learning
- Share your chart progress with other students, your parents and teacher
- Celebrate when you reach each fluency aim

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APPENDIX B

Engage Autism at Maximum Speed: Stamp Out SLOBS! 1
Ogden Lindsley, University of Kansas

SLOBS - Conventional Wisdom

In the late 1960's, while struggling to get special education teachers to use free operants to teach rapidly, I found their teaching wisdom led them in the wrong direction. When facing poor learning they slowed down, spoke louder, did things one at a time, made things bigger, and simpler. I coined the acronym **SLOBS** to describe these poor misguided souls.

S	**Slower?**	**No!**	**Faster.**
L	**Louder?**	**No!**	**Softer.**
O	**One a time?**	**No!**	**Many.**
B	**Bigger?**	**No!**	**Smaller.**
S	**Simpler?**	**No!**	**Full cycle.**

Most student's charts showed **SLOBS** were steps in the wrong direction. SLOBS bored students and did not improve their learning. Students with autism may need speed more than others, after all they self stim above 120 per minute.

Seven Free Operant Freedoms

We can speed our teaching and student practice by letting students:
Choose their task
Present all cues
Form their responses
Repeat and self correct responses
Speed without limit
Select their reward
Invent and try new changes
Most toddlers, and older handicapped learners do not invent and try new improvement changes, but we can give them the other six freedoms.
Free operants share control and give more and faster practice than discrete trials. They are more efficient and more effective

Precision Teaching PT

Applying Skinner's laboratory developed self-charting of response rate to classroom teaching we find four PT parts.
PT Heart is self record on standard chart.
Slogan: "Care enough to chart."
PT Head is our learner. Ideally, each learner does all teaching acts and decisions - a goal we constantly strive for.
Slogan: "Child knows best."
PT Hands are daily, timed, charted, fast, aimed practice sessions.
Ten second within day timings build skills.
One minute daily timings build fluency.
Slogan: "Fast practice builds fluency."
Health of Precision Learning is weekly standard chart sharing with other learners.
Slogan: "Share a brag and help each week."

PT's Chart Heart is Multiply

Our Standard Celeration Chart has a multiply scale up the left for performance. Learners can project their learning aims with straight lines and adjust curriculum to keep their learning on track.

Learn Chart Performance Lines in See+Hear/Say+Point Channel

Stand. Follow leader and say and point to frequency lines on wall of standard chart room. Leader corrects point positions.
1000 per minute ----------
100 per minute ----------
10 per minute ----------
1 per minute ---------- 1000 per day
---------- 100 per day
---------- 10 per day
---------- 1 per day
Fluency practice is in the top cycle above 100 per minute. Conventional discrete trial practice is in the cycle below that between 1 and 10 per minute.

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Engage Autism at Maximum Speed: Stamp Out SLOBS! **2**
Ogden Lindsley, University of Kansas

Learn Chart Learning Angles in See+Hear/Say+Elbow Channel

Stand. Follow leader and rotate left arm at correct angle (slopes) of learning lines. Leader corrects arm angles.

```
x16
    x4
        x2
            x1.4
-           x1
            /1.4
        /2
    /4
/16
```

Learners describe their learning with these values. Most aim at x2 per day in their acquisition sprints on Timings Charts, and at x2 per week in their daily practice to fluency on Daily Charts.

(When we have more time we have learners draw their own standard chart on a blank white sheet of paper at this point.)

Big 6 Plus 6 Elements Isolated

Eric Haughton and Ann Desjardins in 1980 developed 12 pinpoints for extremely fast practice of fine motor skills.

Their big 6:	Their Plus 6:
Reach	**Push-Pull**
Point	**Shake**
Touch	**Squeeze**
Grasp & Release	**Tap**
Place	**Twist**

These component skills should be at 20-25 in 5 seconds. They worked with both hands and charted each hand separately.

Videos Of Therapists Teaching

Here we share videos of timed practice of children with early autism in a home based program managed by Fabrizio/Moors Consulting. I love reach-point following a laser dot. CDROM available from F/MC.

Big 6 Compound

Child reaches for an object, touches it, grasps it, places it over a can and releases it. Use marbles, coins, blocks, or clothes pins. Practice 60 seconds, count objects in can and chart frequency. Aim at 120 per min.

Learning Channels

We teach both hands, but also in as many channels as we can on the same day. The learner must get to performance aim on each channel. A channel sequence for Reach in Big 6 flows like this:

In	Out	Abbreviation
Guide	**Reach**	**G/Reach**
Touch Reach		**To/Reach**
Hear-Touch	**Reach**	**H-To/Reach**
Hear	**Reach**	**H/Reach**
See	**Reach**	**Se/Reach**
Think	**Reach**	**Th/Reach**

A learner may be working on G/Reach, To/Reach, and H-To/Reach on the same day. Work with both hands at once and chart each hand separately

Maxi Guiding at 200 per minute

Conventional educators guide around 1 per second, or 60 per minute. Even precision teachers who know the Big 6 plus 6 guide at low inadequate rates. Maxi guides as fast as the tutor can go. Make those little hands blur at 200 to 300 a minute (50 in 10 secs)!

Earlier The Intervention The Better

We owe Ivar Lovaas and his students enduring gratitude for demonstrating that massive early intervention can arrest and prevent autistic behaviors (Lovaas, 1987).

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Engage Autism at Maximum Speed: Stamp Out SLOBS! 3
Ogden Lindsley, University of Kansas

Mary Had a Real Tough Child

New Lyrics to "Mary had a little lamb"
written by Og Lindsley for CalABA 2000.

Mary had a little lamb,
little lamb, little lamb.
Mary had a little lamb,
its fleece was white as snow.

Mary had a real tough child
real tough child, real tough child.
Mary had a real tough child,
she could not teach or guide.

Then one day she raced his hands
raced his hands, raced his hands.
Then one day she raced his hands
two hundred maxi guide.

That turned the trick, he's on his own,
on his own, on his own.
That turned the trick, he's on his own.
and doubling every week.

He's learning all his big 6 tools,
big 6 tools, big 6 tools.
He's learning all his big 6 tools
soon fluency will peak!

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Precision Teaching Free Operants to Head Strong, Fast, and Narrow Focused Toddlers With Autism - Ogden Lindsley

1

Where we start

First we will find out what we know before we start. We will tell a neighbor what we know about precision teaching free operants. Our listening neighbor will count out loud for each fact heard. I will start us and stop us after one minute.

Then I call for the numbers counted and share them at the overhead projector. Our group chart will give a rough idea of what we knew coming in.

Precision Teaching

Applying Skinner's laboratory developed self charting of performance frequency to classroom teaching we find four parts.
Heart of Precision Learning is self recording on our standard chart.
Slogan: "Care enough to chart."
Head of Precision Learning is our learner. Ideally, each learner does all teaching acts and decisions - a goal constantly strived for.
Slogan: "Child knows best."
Hands of Precision Learning are daily, timed, charted, fast, aimed practice sessions. Ten second within day timings build skills. One minute daily timings build fluency.
Slogan: "Daily practice builds fluency."
Health of Precision Learning is weekly standard chart sharing with other learners.
Slogan: "Share a brag and help each week."

PT's Chart Heart is Multiply

The important thing about our Standard Celeration Chart is that it has a standard multiply scale up the left for performance. This permits learners to project their own learning with straight lines and tell on what day they will reach their aim.

Learn Chart Performance Lines in See+Hear/Say+Do Channel

Stand, Follow leader and point and say to frequency lines on walls of standard chart room. Leader corrects point positions.
1000 per minute
100 per minute
10 per minute
1 per minute 1000 per day
100 per day
10 per day
1 per day
(When we have more time we have learners draw their own standard chart on a blank white sheet of paper.)

Learn Chart Learning Lines in See+Hear/Say+Do Channel

Stand: Follow leader and rotate left arm at correct angle (slopes) of learning lines. Leader corrects arm angles.

x16
x4
x2
x1.4
- **x1**
/1.4
/2
/4
/16

Learners describe their learning with these values. Most aim at x2 per day in their acquisition sprints and at x2 per week in their daily practice to fluency.

Seven Free Operant Freedoms

Four years ago I listed four free operant freedoms (Lindsley, 1996). I overlooked the learner's freedom to choose their task, to select their reward, and to invent and try new task improvement changes. This brings our operant freedoms to seven:
Choose their task
Present all cues
Form their responses
Repeat and self correct responses
Speed without limit

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Precision Teaching Free Operants to Head Strong, 2 Fast, and Narrow Focused Toddlers With Autism - Ogden Lindsley

Select their reward
Invent and try new changes

We strive for these seven freedoms to put our learners in charge of their own learning. Sharing the teaching acts and decisions often overcomes resistance from willful, head strong learners. Most toddlers, and older handicapped learners do not invent and try new improvement changes, but we usually can give them all of the other six freedoms.

These seven freedoms also permit each learner to work at their own fastest maximum speed. The freedoms remove what Carl Binder calls fluency blockers put in by discrete trials.

How Does Performance Grow

Each verse of the lyrics to the tune of Jingle Bells describes a different thing we learned about performance from our learner's charts.
1 - Performance multiples.
2 - You start with at least one to learn.
3 - Learning corrects is independent from learning not to make errors.
4 - Performance of different students spreads equally on a multiply scale.

Jingle Bells

1 Dashing through the snow,
In a one horse open sleigh.
O'er the fields we go,
Laughing all the way.

Chorus Jingle bells, Jingle bells,
Jingle all the way.
Oh what fun it is to ride
In a one horse open sleigh.

How Does Performance Grow

1 How does performance grow?
As we chart it day by day.
To change it we must know.
To forecast we must say:

Chorus: Multiply, multiply,
multiply each week.
That's how our performance grows
to the fluency we seek.

2 Start with zero? No!
To that there's no debate.
We need 1 to grow,
to 2, then 4, then 8!

3 Do errors go away,
when corrects go up each day?
It's not as you think.
They go their own way!

4 Middle guy does 10.
and our bottom guy does 2.
Will top guy do 18?
No! Top guy does 50!

Big 6 plus 6 elements isolated

Eric Haughton and Ann Desjardins in 1980 developed six pinpoints for extremely fast practice of fine motor skills.

Their big 6:
Reach
Point
Touch
Grasp & Release
Place
Their Plus 6:
Pull-Push
Shake
Squeeze
Tap
Twist
These component skills should be at 20-25 in 5 seconds. They worked with both hands and charted each hand separately.

Big 6 Compound

Here child reaches for an object, touches it. grasps it, places it over a can and releases it.

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Precision Teaching Free Operants to Head Strong,
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Fast, and Narrow Focused Toddlers With Autism - Ogden Lindsley

Marbles, coins, blocks, clothes pins can be used. Practice 30 or 60 seconds, count objects in can and chart frequency. Aim for 100 to 120 per minute.

Learning Channels

Not only do we teach both hands, but also in as many channels as we can on the same day. The learner must get to performance aim on each channel. A channel sequence for Reach in Big 6 flows like this:

In	Out	Abbreviation
Guide	Reach	G/Reach
Touch Reach		To/Reach
Hear-Touch	Reach	H-To/Reach
Hear	Reach	H/Reach
See	Reach	Se/Reach
Think `	Reach	Th/Reach

We do not work on one channel at a time. A learner may be working on G/Reach, To/Reach, and H-To/Reach on the same day. Work with both hands at once and chart each hand separately

Details of Teaching Reach By Itself

- Hold object for the child to reach towards.
- Give assistance your channel stipulates.
- As soon as the child moves towards the object, move the object in another direction so the child tracks the object with their hand.
- Do not let the child make contact with the object after each reach. You want the movement to be repeated over and over again. Since grasping and manipulating the object is a natural reinforcer you may want to build up the ratio of reaches to reinforcement when you first begin.
- Practice the reaching for a few minutes then time the child for 15 or 30 seconds counting the number of reaches.
- Chart the frequency information.
- Always give assistance at normal levels of performance. If you are guiding, you should be guiding at 20-25 reaches per second (200-300 reaches per minute)..

Maxi guiding

Eric and Ann did not name their super fast guiding. Conventional educators guide at about 1 per second, or 10 in 10 seconds, or 60 per minute. Even precision teachers who know of the Big 6 plus 6 work guide at low inadequate rates. Maxi guiding moves as fast as the tutor can move. That's why we call it maxi. Make those little hands blur! The word maxi guide points out that the real difference between Eric and Ann's Big 6 plus 6 and the conventional methods is maximum SPEED - 5 to 10 times faster!

Elizabeth Haughton, Eric's widow, uses these methods in her learning center in Napa, CA. Giordana Malabello in Australia, and Alison Moors and Michael Fabrizio in Seattle, use charted free operants in home tutoring programs for toddlers with autism.

Details of Teaching Point Element

- Have objects in front of the child, on the wall, etc.
- Have child point, preferably with an outstretched finger, to each object one after another.
- Keep repeating the sequence.
- Practice for a few minutes then time for 15 or 30 seconds counting how many points.
- Chart the frequency for that hand.

SLOBS - Conventional Wisdom

In the late 1960's, while struggling to get special education teachers to teach rapidly and use free operants I found their entrenched conventional wisdom went in exactly the opposite direction. When they ran into teaching problems they slowed down, spoke louder, did things one at a time, made things bigger, and simpler. I coined the acronym **SLOBS** to describe this conventional wisdom that guided teaching in the wrong directions.

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S Slower
L Louder
O One at a time
B Bigger
S Simpler

Our charts showed us that we often got steeper learning going faster, speaking softer, teaching full compounds, making things smaller, and teaching the complete final action. (Large primary pencils are too big for those little hands to draw fast.)

For most students **SLOBS** were steps in the wrong direction. Making things slower, louder, bigger, and simpler bored them to tears and did not improve their learning.

Head Strong

From 1965 through 1972 I taught fathers of children with retardation and autism to improve their children's behavior in their homes and community. I developed a sort of theory describing these youngsters with autism. Unusually head strong, they often demand their way to the point of demanding to sit in one seat at a restaurant table rather than any other table or seat. It is this seat right here, or you get a tantrum!

King Floppo The First

An example of head strong was a boy we called "King Floppo the First." He had eaten until he weighed close to 200 pounds. He threw himself on the floor of his home or his school corridor when he did not get his way. Teachers had to call the fire department to move him.

Fast

I also noticed that they self-stimulated themselves at very high frequencies - usually above 120 per minute. If finger flicking, they flicked as fast as they could in front of their eyes. I never saw a slow finger flicker. The rockers rocked as fast as they could move their bodies. When we offered them stimuli, they picked the fastest moving ones.

Narrow Focused

Many children with autism focused on a narrow band of colors, objects, numbers, or sounds. Telephone numbers but not street numbers. All things turquoise - no other color will do.

Head Strong, Fast, Narrow Focused Theory

After researching the behavior of children with autism from 1953 to 1965 in my Harvard Medical School Laboratory in Metropolitan State Hospital, Waltham, MA, and teaching parents from 1965 to 1972 at KU Medical Center in Kansas City, Bernie Rimland asked me what my theory of autism was. I answered, "They are very head strong, fast, and narrow focused young people." Bernie laughed and said, "That is not a theory, that is a description." And so it is. Lindsley's descriptive theory of autism.

Free Operants Share Control

The seven free operant freedoms share control of the learning with these head strong youngsters. Because of this free operants may produce more learning than the discrete trial teaching methods.

Free Operants Give Faster Practice

As Carl Binder has pointed out, the absence of fluency blocking trials permits fast unlimited practice which may fit better with some children's need for faster stimulation and action.

Free Operants Give More Practice

Using free operants gives 10 to 30 times more practice a day in each skill than when the tutoring is done with discrete trials.

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Precision Teaching Free Operants to Head Strong,
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Fast, and Narrow Focused Toddlers With Autism - Ogden Lindsley

Earlier the Intervention The Better

We owe Ivar Lovaas and his students enduring gratitude for demonstrating that massive early intervention can arrest and prevent later autistic behaviors (Lovaas, 1987). Without their clear cut, systematic research that has continued over the ensuing years, our free operant would be impossible.

How much did we learn?

Now tell your neighbor what you know about precision teaching free operants. Our listening neighbor will count out loud for each fact heard. I will start us and stop us after one minute.
Then I call for the numbers counted and chart them at the overhead projector. Comparing with our starting frequencies shows what we learned.

Mary Had a Real Tough Child

New Lyrics to "Mary had a little lamb" written by Og Lindsley for CalABA 2000.

Mary had a little lamb,
little lamb, little lamb.
Mary had a little lamb,
its fleece was white as snow.

Mary had a real tough child
real tough child, real tough child.
Mary had a real tough child,
she could not teach or guide.

Then one day she raced his hands
raced his hands, raced his hands.
Then one day she raced his hands
at 200 maxi guide.

That turned the trick, he's on his own,
on his own, on his own.
That turned the trick, he's on his own.
and doubling every week.

He's learning all his big 6 tools,
big 6 tools, big 6 tools.
He's learning all his big 6 tools
soon his fluency will peak!

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Using Sprints and Dashes in Your Corporate Projects*

Ogden Lindsley**

Sprints

- Timed 10, 20, or 30 second practice sprints held within one class period to build accuracy and speed.
- Frequency converted to number per minute and charted on standard timings chart after each timing.
- Usually learners aim to keep performance above a times 2 celeration (doubling) line drawn on chart.
- • Once there are no errors in sprints speed practice can be moved to daily one minute practice dashes.

Dashes

- Timed 1 to 2 minute practice dashes held daily to build fluency.
- Frequency per minute correct and incorrect are charted each and every day on daily standard change charts.
- A fluency aim is marked on the chart which will guarantee Retention, Endurance, Application, and Stability. (REAPS).
- If the slope of the charts flattens before the fluency aim is reached, the learner makes changes to improve their learning slope.

Welcome your Standard Charts

- Point to the parts of our chart room.
- Draw your own chart.
- Sing "Big number on the left" as we walk up our standard charts.

Learning channels

- Free/say, free/abbreviate, free/write...
- See/say, see/abbreviate, see/write. See/mark, see/do...
- Hear/say, hear/abbreviate, hear/write, hear/mark, hear/do...
- Hear+see/say+do, hear+see/say+abbreviate, hear+see/say+write....

Practice sheets

- Right to left.
- 100 problems on sheet.
- Answer sheet for timing partner's use.
- Totals at right of each row to make counting easy.
- Usually 10 rows of 10 in each row on sheet.

Practice cards SAFMEDS

- SAFMEDS = Say All Fast a Minute Each Day Shuffled.
- Commercial decks of 100 3x5 inch index cards work well.
- Learners can make their own, or company prints some up.
- Commercial preprinted flash cards have too much info on each side. This distracts and blocks fluency if learner tries to say it.
- Instructions for making SAFMEDS available from Zero Brothers at ZeroBros@aol.com

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