

## Do Times Two, Then Go for Four, Or More: Precision Teaching Aims for the 21st Century.

Ogden R. Lindsley

**An outline of  
our 20th and  
21st century  
challenges**

Here follows a brief historical outline of our major 20th century discoveries and the even more exciting challenges facing us in the first part of the 21st century. We have the knowledge, the energy and the tools to accomplish amazing progress in learning in the next 25 years.

We are poised on the threshold of amazing progress. Our knowledge, skills, position and timing are excellent... LET'S GO!

**20th century  
discoveries**

We started with rate of response and "pinpoint, record, and consequate," which Nancy Johnson put to music in 1967.

We proved all behaviors multiply with the Behavior Bank.

We proved corrects and errors, positive and negative feelings, and feelings and their related behaviors accelerate and decelerate independently. This required counting and charting accelerate/decelerate pairs from then on.

We designed and tested in practice a full line of daily, weekly, monthly, and yearly Standard Celeration Charts, covering weekly, monthly, 6 monthly, and 5 yearly celerations.

We developed a system of plain English words to describe changes in frequencies and celeration, along with graphical descriptive and interpretive statistics.

We developed practical, inexpensive classroom Precision Teaching and saw it multiply and then be ignored by the educational establishment.

We established private schools (Ben Bronz Academy, and Morningside Academy) and private learning centers (Quinte Learning Center, Haughton Learning Center, and Cache Valley Learning Center) beyond the reach of public school control.

We joined with our brethren in Direct Instruction and combined our effective educational procedures.

We built and grew to understand fluency, and its producers, blockers and products.

One of our popular workshop songs was "Are you charting," written by Hank Pennypacker in 1975 to the tune of Frere Jacques.

Our slogans were "The child knows best," and "Care enough to chart!"

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**Sprints**

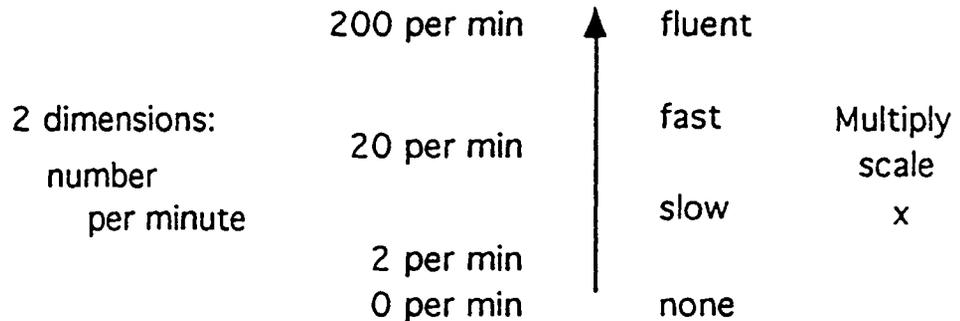
1974 Eric Haughton and Mary Kovacs used 30 and then 15 second practice sessions working with Dominick at St. Catherine's Developmental Center, Hamilton, Ontario.

1979 Harold Kunzelmann and Carl Koenig used 15 second practice and 20 second screening for referral of preschool and kindergarten children in REFER.

1990 10 second sprints ( 8 to 10 per day) used for establishing new skills at Morningside Academy by Kent Johnson, Hollind Kevo, and James Peters.

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**Performance  
(frequency)  
ladder**



The performance (frequency) ladder has one direction with fluency at its top. It has 2 dimension and is on a multiply scale.

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**Celeration fans**

1938 The diagram calibrating the slope of cumulative records was called "coordinates" by Skinner, and by Ferster and Skinner 1957.

1953 to 1993 I called them "grids" and put them on my cumulative records.

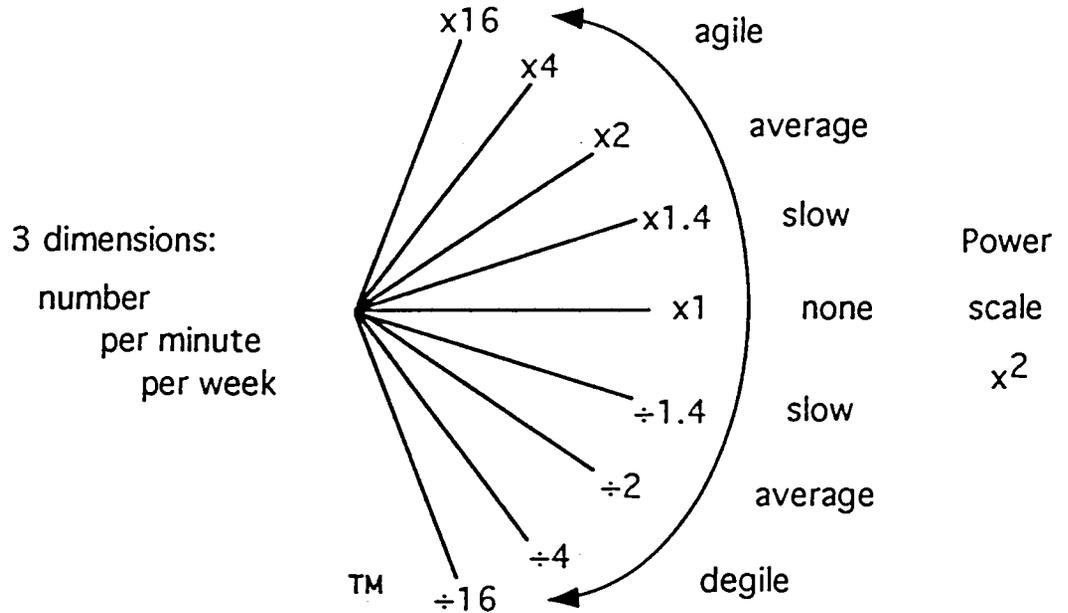
1993 I renamed them "fans" and put them on journal published Standard Celeration Charts (Lindsley, 1996).

1996 Behavior Research Company first put celeration fans on paper SCCs. The fans are a trademark of Ogden R. Lindsley.

It has taken us decades to directly use, describe, and be comfortable with our unique product - celeration. No one else has it.

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**Learning  
(celeration)  
fan**



The learning (celeration) fan has two directions. Celeration has 3 dimensions and is on a power (times self) scale.

An agile person will be able to change direction - learning new skills and unlearning old skills rapidly adjusting to the more and more rapid information age changes.

**Weekly  
celeration  
aims**

1972 Lindsley describes the celeration aim star. The arms of the star were tipped at the celeration aim angle. (Frequency aim star had horizontal arms).

1975 x1.25 Kathleen Liberty took middle aim from 600 projects. (53% greater than x1.25 and 66% less than x1.25).

1976 x1.25 White and Haring suggested 6 different celeration aim methods.

1. Set aim date and aim rate.
2. Catch up slope to join peers.
3. Child can do 75% of the time from prior celerations.
4. Similar movement, similar slope. best can do for similar movement.
5. Teacher can do slope for amount of progress that teacher can provide for.
6. x 1.25 Standard Celeration taken from Kathleen Liberty's median.

1979 x1.9 ÷2.5 Marilyn Chapel leapt her class of 15 second graders from add to multiply facts without instruction and accomplished x2 celerations. Ever since then I urged precision teachers to set x2 high celeration aims.

1984 x2 slopes on gold and silver rings made and distributed by Eric Haughton but he did not demand x2 aims from his students and teachers.

1991 x2 per week aims for all daily practice at Morningside Academy.

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**Daily sprint  
celeration  
aims**

1992 (Summer) x2 aims set for ten sprints within one day at Morningside Academy by Kent Johnson, Hollind Kevo, and James Peters.

1992 (Fall and Spring, 1993) x2 per day aims for sprints and x2 per week aims for daily practice repeated with success at Malcolm X College by Joe Layng, Angela Boone, and Hubert Dure.

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**The  
Morningside  
curriculum**

The power of the Morningside curriculum is attributed to its fluency generating. No doubt this is important, but I feel that Morningside's real power is that it is the first program to set and demand realistically high celeration (x2) aims for both repeated 10 second sprints on one day and weekly x2 aims for one minute daily practice sessions.

In published articles, the effect and the need for these celeration aims is not mentioned. The whole effect is attributed to fluency with no mention of Morningside's even more powerful and unique use of distinguished (x2) daily and weekly celeration aims (Johnson and Layng, 1992).

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**21st century  
challenges**

We will build and grow to understand agility, and its producers, blockers and products.

We will focus on and add knowledge and experience of celeration. Just as we learned the products of aiming at high fluency, we will learn the benefits of aiming at high agility.

If we build tool skills at higher accelerations (agility), will we get super high deceleration's (degility) for future tasks?

What are the practical limits to celeration? Will there be different limits for different channels? Is it possible that the hear-say channel, which tends to be our most fluent channel, prove to be our most agile channel as well?

Just as we got fluency generativity from building component tool skills to high frequency, will we get agility generativity from building component tool skills at high celerations?

Our large scale applications at Morningside, Malcolm X, Chicago Public Schools, Houghton Learning Center, Cache Valley Learning Center, and Ben Bronz Academy provide unique opportunities to examine what Harry Harlow called "Learning to Learn" fifty years ago. Harlow tried to study it using percent of trials correct as his measure. We have the advantage of having learning in 3 dimensions - number per minute per week, and of having learning to learn in 4 dimensions - number per minute per week per year.

A popular workshop song will be "We all promise, we will do times two!"

And our slogan will be "Do times two, then go for four, or more!"

Thank you for joining me in this grand adventure!

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## Precision Teaching Classics Sung By The Audience

At the designated points in the previous outline I led the audience in choral singing of the following three Precision Teaching songs. The words were typed in large 42 point type on overhead transparencies and pointed to in rhythm to lead the singing.

The first two songs represent two of the different stages in the evolution of Precision Teaching. The third song presents our future challenge in the first quarter of the 21st century.

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Pinpoint,  
Record, and  
Consequate!  
1967

Words and music by Nancy Julia Ann Johnson, for Precision Teaching Workshops, Kansas City Missouri.

Pinpoint, Record, and Consequate.

Be specific, get that rate,

Aim at the target, then consequate!

Pinpoint, Record, and Consequate!

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Are You  
Charting?  
1973

Words by Henry S. Pennypacker sung to the folk tune of Frere Jacques, for Precision Teaching of Florida workshops.

Are you charting? Are you charting?

Yes we are! Yes we are!

Chart a little movement. Look at the improvement!

Every day, In every way.

Are you changing? Are you changing?

Yes I am! Yes I am!

Changing my procedures. Helping little creatures,

Learn to grow. See them grow!

Are we teaching? Are we teaching?

Yes we are! Yes we are!

Teaching with Precision, making each decision,  
with our charts. From our hearts!

From our hearts!

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We shall not be  
moved  
1920s

This classic union song was sung on picket lines in the strike-torn 1920s.

We shall not - we shall not be moved.

We shall not - we shall not be moved.

Just like a tree that's standing by the water,  
we shall not be moved!

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We Will Do  
Times Two!  
1996

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Words by Ogden R. Lindsley to classic union picket-line tune of "We shall not be moved," for International Precision Teaching and Celeration Conference, Seattle WA.

We all promise - we will do times two.  
We all promise - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Kent is our designer - we will do times two.  
Kent is our designer - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Og's our chart inventor - we will do times two.  
Og's our chart inventor - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Joe's our program builder - we will do times two.  
Joe's our program builder - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Hollind is our trainer - we will do times two.  
Hollind is our trainer - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Jim is our developer - we will do times two.  
Jim is our developer - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Huby is our trainer - we will do times two.  
Huby is our trainer - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Angela's our developer - we will do times two.  
Angela's our developer - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

Black and white together - we will do times two.  
Black and white together - we will do times two.  
Just like our friends at Morningside and Malcolm,  
We will do times two!

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Keynote Address, International Precision Teaching and Celeration Conference,  
Seattle, WA - 10 October 1996