

Using Spark 80 multiplication tables software (Trifiletti, Trifiletti, & Williams, 1979), ten exceptional education middle school students with two months of intermittent keyboard practice were timed daily on 50 see-type random numerals (0-10) for a period of one school week. Frequency determination has been programmed into Spark 80, thereby making comparison with other frequency-oriented programs somewhat difficult. It is worthwhile to note that Spark 80 uses a clock-on/clock-off approach; the clock is on as the example is introduced, going off after the student response. With the introduction of the next example, the clock again comes on. We feel this is an excellent software approach. It reduces eye strain, anxiety, and video confusion, and, in our opinion, greatly increases the validity of the resulting scores. Time is also built into the program for introducing interventions.

The see-type random numerals program was improvised by Donna to give us an adequate gauge upon which to determine individualized proficiency standards. Donna transformed the Spark 80 Times 1 drill into a see-type random numerals (0-10) utilizing ordinary masking tape to cover the x1 on each example. The students and Ken were asked to quickly type the numeral displayed on their monitor. All the students (and Ken) completed all 50 numerals each day. The program computed digits typed per minute.

The resulting data are displayed in Chart 1. From these and other data, we conclude and generalize:

- (1) a see-type digits performance standard is presently 60-100 digits per minute;
- (2) a see-type digits on random math operations (sums to 18, differences from 18, multiplication 0-9, and simple division) proficiency standard ranges from 50 digits per minute for the beginning typist to 70-80 digits per minute for the more experienced;
- (3) an individualized performance standard should not be established for an individual until at least a week of data-gathering has taken place;
- (4) accelerations of $x1.5+$ should be expected from novice typists during the first week of timings; frequency tends to level off at approximately 80-90 digits per minute after the first week of practice;
- (5) as more and more students acquire digit-typing proficiency, performance standards should rise accordingly; frequencies of 100-200 digits per minute with no errors should be commonplace

within several years; and

(6) for performance standard generalizations to be meaningful, software timing standardization is needed; for precision teaching to be meaningful as a national research tool in an age of micro-computer interactions, a standard timing gauge is critical; this must be accomplished while the technology is new, before the market is flooded with frequency-based software.

If you have questions about the software, please write us. We look forward to comment and similar data.

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About PT

NOTES FROM THE EDITOR

Patrick McGreevy

Welcome to Volume III, No. 3. I would like to remind everyone to please help us with subscriptions. Encourage your agency to subscribe or give the Journal as a gift to a friend.

I would like to welcome Lynette Lacy as our new associate editor. She will assist in coordinating the review of manuscripts and preparing each issue for publication. I would also like to welcome Susan Evans, Julie Vargas, William Evans, and John Eshleman to the editorial staff. I look forward to working with these people.

Data-sharing groups are beginning to spring up around the country. Recently, "a small group of Alachua and Marion County (Central Florida) teachers founded the Association of Precision Teachers (APT). This quiet but landmark happening took place on August 10, 1982 at the home of Marie LaFave. The primary purpose of the group is to improve teaching and student learning through Precision Teaching procedures. Monthly meetings will be held. Programs at the meetings will include sharing data and procedures on a specified topic, supporting new Precision Teachers and planning ways to advance the cause of Precision Teaching and data-based instruction

in this area." (taken from the **APT Baseline**, Volume I, No. 1, September 20, 1982) John Downs, Bob Bower and Tom McCrudden have organized a group in Omaha, Nebraska. Their next meeting is scheduled for early December. Most of you know that the greater Boston area data-sharing group led by Carl Binder was organized several years ago and is still going strong. If you decide to form a group, let us know about it and share your data for possible publication.

The **Data-sharing Newsletter** is back in business! I would encourage all of you to subscribe. Each issue is filled with useful data, references, and procedures. A yearly subscription is \$10.00. To subscribe, send a check to: Carl Binder, Precision Teaching and Management Systems, P.O. Box 169, Nonantum, MA 02195.

If you would like to recommend changes in the format or content of **JPT**, don't hesitate to let us know. This is **your Journal**.

CHARTING ADMINISTRATIVE BEHAVIORS

Skip Berquam & Ann Starlin

Administrative leadership and effective management are necessary for any institution or organization to run efficiently. Schools are certainly no exception. One of the consistent and clear findings of the "effective schools" research conducted in the 1970's was that such schools had principals who were instructional leaders, rather than being just building managers. This is hardly an earth-shaking revelation. It should, however, elicit the somewhat novel question "What is it that an effective (fluent?) principal does?"

This line of questioning in the 1960's and 1970's led not only to a precise description of what fluent students did, but actually altered some educational programs in a way that produced more of these fluent students. It seems appropriate, in continuing this logic, to similarly describe and measure those teacher and administrator behaviors which are most likely to produce the kind and number of fluent students that our society needs.

Although the effective schools research, including data from direct instruction and precision teaching projects, seems to have had only a narrow impact on teacher training programs, it is with a rather thick-skinned optimism that we attempt to describe and measure the behaviors of the fluent principal. If education is reluctant to measure the performance of its students, can we expect it to measure the performance of its teachers and principals? Probably not, but let's

proceed with a blind hope, which lies with the thousands of chart-trained teachers and, perhaps hundreds of chart-trained administrators.

Who is to chart the behaviors of teachers and administrators? In training sessions we are constantly reminded that students must own their charts; they must "name their own horse" (thanks, Og). Yet, if there are over 100,000 students keeping their own charts nationwide, and over 10,000 trained teachers and administrators (Sacajawea Project data), how many teacher charts are being kept? How many principal charts are being kept? How many, excuse us for asking, college professor charts are being kept? Or is the chart only good for kids? Are we professionals so effective and so fluent in what we do that we do not need to systematically collect and analyze data on ourselves? We don't think so either. (Quick, Ann, help me down from this soap box before the mob attacks.)

Enough of this chiding. Perhaps you would like to see an actual chart of a principal's behavior? Let me get the file of charts on myself. It happens, by the way, to be the skinniest folder in my filing cabinet. (Let he who is without sin cast the first dot.) This is not to imply that I have no need to chart more of my own behaviors. It simply means that I am like so many others in this field. I love to collect, analyze and judge data, as long as it is on someone else! (The chart, please, Ann. They are getting nasty again.)

The effective principal must know what is happening in her or his school. It is necessary not only to look at some end result, such as student performance data, but to also know what is going on in classrooms. Thus, it seems reasonable to assume that classroom visits and observations must be made.

In managing this aspect of my administrative behavior, I follow a guideline that seems to have growing application for us: Quantity precedes quality. Thus, my objective was to count classroom visits. I made no initial difference between long or short visits, or between specific reasons for visits. If I entered a classroom, I made a count. My intention was to make many visits to each room. Within these many visits would be long visits and short visits, and some formal observations. From this quantity of visits, I hoped to draw the "quality" component that is necessary to properly assess the teaching/learning process.

Phase 1 of the chart shows the number of room visits I made per week, when I counted and charted them daily (these data are summarized from another chart). I drew several conclusions