at the third annual Precision Teaching Winter Conference, Orlando, FL.

Pennypacker, H. S., Koenig, C. H., & Lindsley, O. R. (1972). Handbook of the Standard Behavior Chart. Kansas City, KS: Precision Media.

Skinner, B. F. (1957). **Verbal Behavio**r. Englewood Cliffs, NJ: Prentice-Hall.

John Eshleman is a doctoral student at West Virginia University and is employed by Products Research Company, Pittsburgh, PA. He resides at 7000 Helen Street, Apt. B-6, Library, PA 15129.

Chart - sharing

THE EFFECTS OF PRECISION TEACHING ON CHILDREN WITH ACADEMIC DIFFICULTIES

Celia P. Hendler Nova University

Precision Teaching, developed by Ogden Lindsley in 1967, has become widely known as an effective mode of remediation for underachieving students (Diviaio & Hefferan, 1983; Lovitt & Fantasia, 1983; McGreevy, 1982; Brandstetter & Merz, 1978). Precision Teaching may be described as a system which utilizes direct and continuous measurement in order to improve a student's performance in certain academic and social skills.

The primary aim of the present study was to increase performance in specific academic skills of 4 underachieving students. These students had previously received numerous forms of academic intervention, all of which had proved to be ineffective.

A precision teaching program was devised in which semi-logarithmic charts were utilized to record the daily one minute timings for each pinpointed skill. Each skill was recorded on a different chart by this author. The charts were shared and discussed with the students so that they would see a daily picture of their progress. The correct responses were marked with dots and connected daily. The incorrect responses were marked with x's and were also connected daily.

The modes of assessment used to measure each skill were probes on which the student's daily performance was measured and timed for one minute, and subsequently recorded on the semi-logarithmic chart. These probes were administered after the students had received direct instruction in the particular skill to be tested.

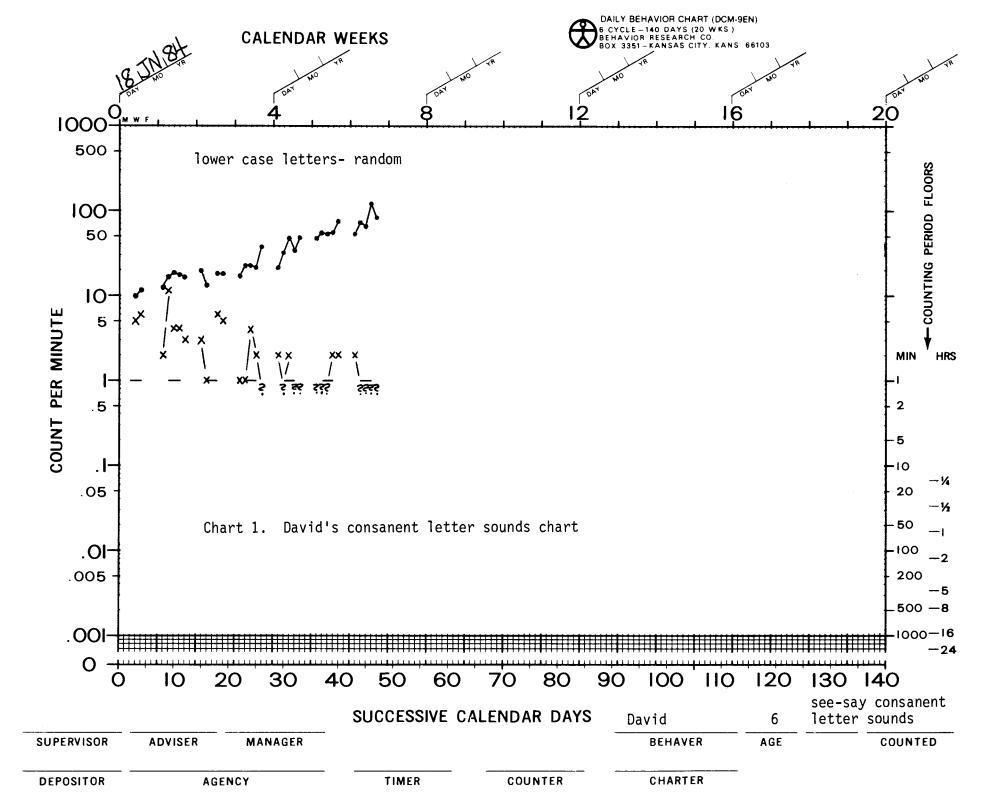
Charts 1-4 indicate that the implementation of this program proved beneficial to all of the students. Although few students achieved mastery of all the pinpointed skills, their learning pictures indicate considerable improvement during the eight week period.

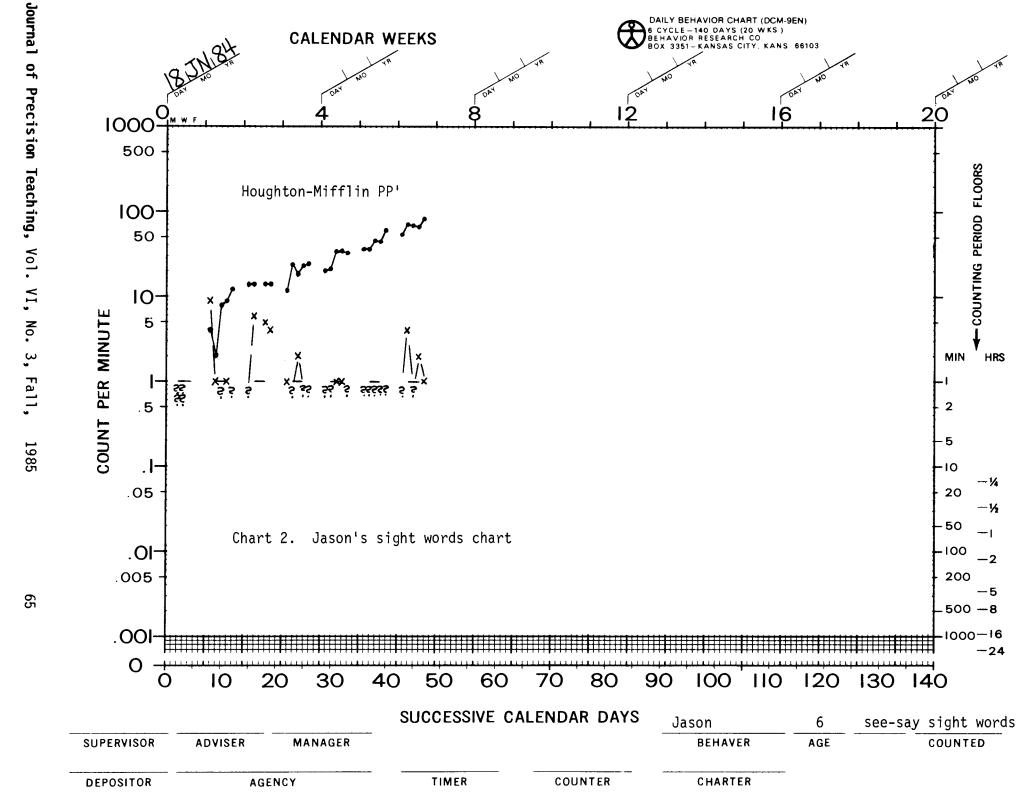
Some conclusions which may be extracted from the results of this study, are as follows: (1) precision teaching was effective for improving performance in the pinpointed academic skills of the 4 students; (2) the student's learning pictures indicated that performance in the pinpointed academic skills will probably continue to increase, providing a similar type of program continues to be implemented in the student's educational setting; (3) improvement in the students' self concepts, "on task", and appropriate behavior, were also noted (though not charted), and believed to be due to the implementation of the program.

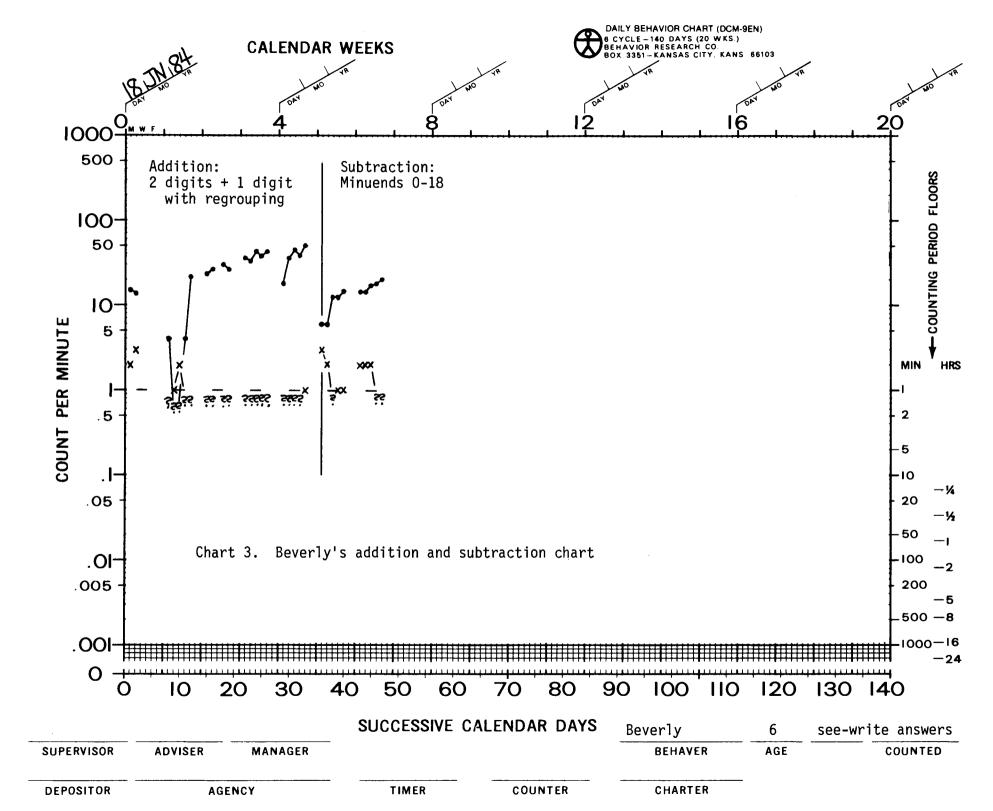
The results of this study provide numerous implications for educators involved in the teaching of underachieving students. First, in order for effective learning to take place, it is essential that each child be taught as an individual. Precision teaching offers educators a way of systematically monitoring each child's progress, so that when instruction is not effective, this will be illustrated on the student's chart immediately. Hence, rather than discovering (after a number of months) that the student is behind in a certain skill, the educator will see this instantly, and will hopefully be able to remedy the situation by providing a different type of instruction.

Second, it is important to note that the students in this study enjoyed observing their daily progress (as seen on the charts), and were constantly attempting to improve their performance from the previous day. Consequently, precision teaching may be viewed as a possible motivator for underachieving students, which can in turn lead to increased academic achievement. It is especially important for underachieving students to be able to actually see their academic progress, as they often tend to become discouraged due to frequent failure in the educational system. If they have the









opportunity to observe the ascent of their academic performance, maybe their degree of discouragement would be lessened, which in turn might encourage them to try harder to improve their performance.

Finally, an important point to consider is that the underachieving students in this study had previously received a multitude of interventions in an attempt to increase their academic performance, all of which proved to be ineffective. Educators are constantly searching for a mode of teaching that "works" with this type of student. The fact that precision teaching proved effective in increasing academic performance when nothing else "worked", is of considerable importance in and of itself. Educators should keep this in mind when they are devising programs of instruction for underachieving students.

References

Brandstetter, G., & Merz, C. (1978). Charting scores in precision teaching for skills acquisition. Exceptional Children, 45, 42-48.

Diviaio, L. G., & Hefferan, M. P. (1983). A resource manual for the development and evaluation of special programs for exceptional students-- Techniques of precision teaching, V -- D. Tallahassee: State of Florida, Department of Education.

Lovitt, T. C., & Fantasia, K. (1983). A precision teaching project with learning disabled children. Journal of Precision Teaching, 3, 85-90.

McGreevy, P. (1982). About P.T. Journal of Precision Teaching, 3, 28-33.

The author gratefully acknowledges the assistance of Melinda Ossorio and Shelley Obrand with data collection and earlier drafts. At the time this article was written, Celia Hendler was affiliated with the Center for the Advancement of Education at Nova University. She is presently affiliated with the Department of Psychology at the same university. She resides at 3369 College Avenue, Building C, Apt. 306, Davie, FL 33314, 305-474-5477.

About PT

NOTES FROM THE EDITOR

Patrick McGreevy

Some of you may have thought that your last two issues of Volume VI were "consumed" by the U.S. Postal Service sorting machines, or that, perhaps, the Journal had decided to fold its tent and fade into the sunset. Neither is the case. A number of problems contributed to the delay. One of them was the lack of good manuscripts and chartshares. WE NEED BOTH! I decided that a delay was better than issues of lesser quality. This issue, Volume VI, Number 3, was mailed at about the same time as Volume VI, Number 4, which you should receive in a few days (if you haven't already).

Volume VII, Number 1, the first issue of the next volume, will be ready for mailing shortly. To renew your subscription, simply return the pink subscription form attached to Volume VI, Number 4. I would appreciate it if you would encourage a friend or colleague to subscribe. If you return a new subscription with your renewal before 1 June 86, you can deduct \$2.00 from each subscription. If your university library or school media center subscribes, you can deduct \$4.00 from your subscription.

SOCIAL SKILLS

Christine Y. Mason

With this issue of the Journal of Precision Teaching a new Social Skills column is introduced. The introduction of this column represents an opportunity to encourage datasharing regarding overt and covert behaviors, verbal and motoric responses, and social skills curricula and change in social behaviors.

The high incidence of sexual, emotional, and physical child abuse and its correlations with handicapping conditions provides even further rationale for focusing some attention on social skills development. Reports suggesting a high relationship between levels of social skills and job performance of mentally retarded persons and other reports of correlations- between social skills and