

whereby the student used the same wrist counter to determine the number of positive statements made during five hours of the school day. This phase was presented to the student as a reward for decreasing negative verbalizations. After recording positive statements for five days, and observing the beginning of rapid acceleration, the student returned to his home school. The home school personnel were informed of these successful interventions and were encouraged to continue using them.

These data indicate that self-report may be an effective method for monitoring positive and negative verbalizations in the school setting. Making the student aware of his behavior may be a useful step toward positive behavior change.

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**THE PAPER CLIP COUNTER(PCC):
AN INEXPENSIVE AND RELIABLE
DEVICE FOR COLLECTING
BEHAVIOR FREQUENCIES**

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Many teachers collect continuous (daily) frequencies in their classroom on specific movements (tasks, behaviors) or pairs of movements (Lindsley, 1972; White and Haring, 1980; McGreevy, 1983) for each student. Some of these movements or pairs of movements, such as "sees and writes answers to mixed multiplication facts correctly or incorrectly", or "hears and writes spelling words from Lyons and Carnahan-Book 3 correctly or incorrectly", are assessed daily for a one or two-minute counting period and leave a permanent record (answers or words) that can be counted easily at the end of the counting period (White and Haring, 1980). Other movements, such as "sees and says Dolch sight words correctly or incorrectly", are

also monitored daily using a one or two-minute counting period, but do not leave a permanent record. If the starting and ending point of a student's "say" performance on a word list are marked, or if flash cards are used, the correct and incorrect movements can also be counted easily at the end of the counting period (McGreevy, 1983).

Some movements or pairs of movements, such as "raises his hand while in his seat or leaves his seat and interrupts other children", are assessed daily for a longer counting period (e.g. one hour, three hours, or the school day) and do not leave a permanent record. Inner movements, such as "feels challenged", are also monitored daily using longer counting periods and again do not leave a permanent record. These movements must be counted as they occur using special behavior counters (McGreevy, 1983). Four of the most commonly used counters are: (1) a wrist counter (Lindsley, 1968), (2) an abacus wrist counter, (3) an abacus shoestring counter, and (4) an index card and pencil. The wrist counter is a metal device about the size of a watch, attached to a watchband. This counter is operated by pushing one of two buttons and will retain a count up to 99 for one movement and nine for another. The abacus wrist counter is made of pipe cleaners and beads arranged in 12 rows of nine beads attached to a leather wrist band. This counter is operated by sliding beads in rows designated as ones or tens and will retain a count up to 99 for six movements. The abacus shoestring counter is made of a shoestring and beads arranged in four sets of nine beads attached to a key ring. This counter is operated by sliding beads in the same manner as the abacus wrist counter and will retain a count up to 99 for two movements. The index card and pencil are used to retain counts for one or two movements depending on the size of the marks and the card.

The Paper Clip Counter (PCC), shown in Figure 1, is an easily assembled, inexpensive, reliable alternative to these four behavior counters. Similar to the abacus shoestring counter, the PCC will retain a count up to 99 for two movements. However, the PCC is quickly and easily assembled with

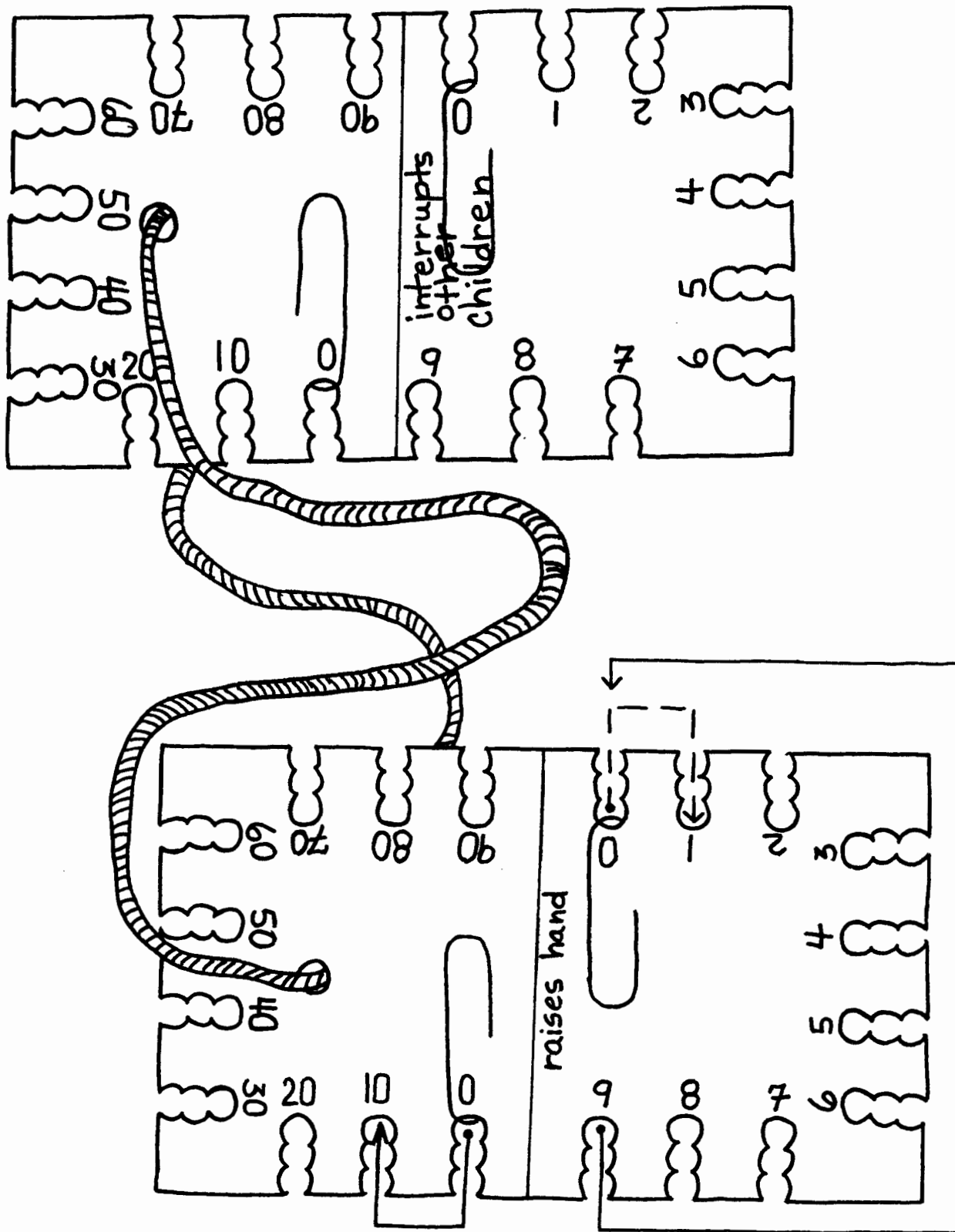


Figure 1. The Paper Clip Counter(PCC)

materials found in almost every teacher's desk. These materials are: four #1, standard size paper clips that have not been bent, two 3" x 5" index cards, a single-hole punch, several pieces of cellophane tape, and one piece of twine or yarn approximately two feet in length. The PCC costs approximately five cents and can be assembled by teachers or students in approximately ten minutes. The reliability of the PCC, in terms of retaining the count, was tested by seven teachers for 50 school days. Each teacher was asked to set the PCC on a particular count at the beginning of the school day and wear it around her/his neck. The "retaining the count" reliability was defined as the proportion of the number of days that the count on the PCC remained the same from the beginning to the end of the school day to the total number of days the PCC was worn. The reliability of the PCC was found to be 50/50 days.

Figure 1 displays the PCC in its actual size. To construct the PCC, refer to Figure 1 and follow these seven steps: (1) write or type the numbers on the two cards exactly as shown; (2) draw a line dividing each card in half as shown; (3) designate by words or marks the movement to be counted on each card; (4) cover the edges of both cards with cellophane tape; (5) punch three overlapping holes 20 times on each card exactly as shown; (6) place the four paper clips on the cards surrounding the four zeros; (7) punch a hole near one end of each card; and (8) place the twine or yarn through each hole and tie the two ends. Now the PCC is ready for use by a teacher or a student and can be worn around the neck.

When one of the movements first occurs, move a paper clip on the appropriate card from "0" to "1". Each time this movement occurs, move this paper clip to the next number. This is shown in Figure 1 with dash lines. When this paper clip is at "9" and the movement occurs, move it back to the "0" in that half of the card and move the other paper clip from "0" to "10". This is shown in Figure 1 with solid lines. Then, continue counting using this procedure.

The PCC is considerably less expensive and easier to replace than all of the

counters previously described, except the index card and pencil. The PCC is capable of retaining more data than the wrist counter and as much data as either the abacus shoestring counter or the index card and pencil. In addition, the PCC is easier to use than either the abacus wrist counter or the index card and pencil. Thus, the PCC is the first reliable, easy-to-use counter accessible to students, enabling them to monitor and manage their own behavior.

While using the PCC, the first author discovered additional uses for this device: (1) the cards can be laminated and the backs can be used to store reward stickers; (2) 3M Post-it Notes can be attached to the back of the cards as notes or reminders to the teacher or student; and (3) the aim for each movement can be designated by placing a star or mark next to the appropriate number (see Figure 1).

REFERENCES

- Lindsley, O.R. (1968). A reliable wrist counter for recording behavior rates. *Journal of Applied Behavior Analysis*, 1, 77-78.
- Lindsley, O.R. (1972). *Precision Teaching short course training materials*. Kansas City, KS: Precision Media.
- McGreevy, P. (1983). *Teaching and learning in plain english (2nd ed.)*. Kansas City, MO: Plain English Publications.
- White, O.R., and Haring, N.G. (1980). *Exceptional Teaching (2nd ed.)*. Columbus, OH: Charles Merrill.

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