rather in a table or log. By using these techniques, more runners can improve their running performances, and reduce the number of races for which they are improperly prepared.

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PROBE SHEET CONSTRUCTION

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The use of probe sheets in Precision Teaching is a common occurrence. Most probe sheets contain a particular class of skills that a student is asked to perform. In this brief study, attention was given to the construction of the probe sheet.

Two students, ages 7 and 8, attending a school for the behaviorally disordered were given math probe sheets prepared by the Orange County Florida Precision Teaching Project. Student 1 worked on see-write sums 0 to 9 and 0 to 18. Student 2 worked on see-write answers to multiplication facts x0 to 2 and 3-4.

On the probe sheet, the vertical area under the problems where the students were to write the answers was approximately 14/16 of an inch. This area was suspect as a cause for illegible numbers and slow student performance. The students in this study had attempted to write answers that would fill the entire space. During the study, a horizontal line was drawn under each row of problems so that the space between the bottom of the problems and the line was equal to that of standard 5/16 of an inch ruled paper.

Student performance on the ruled probe sheets was compared to that on the unruled ones. The students were not given any additional instructions and were asked to perform on the probe sheets as usual. Scoring criteria for number formation was derived from the Palmer Method (1979). Charts 1 and 2 display the performance of students 1 and 2 respectively. The first phase in each chart displays performance on the unruled probe sheets, while the second phase represents performance on the ruled ones. Table 1 shows the median accuracy ratio of the two students in each phase.

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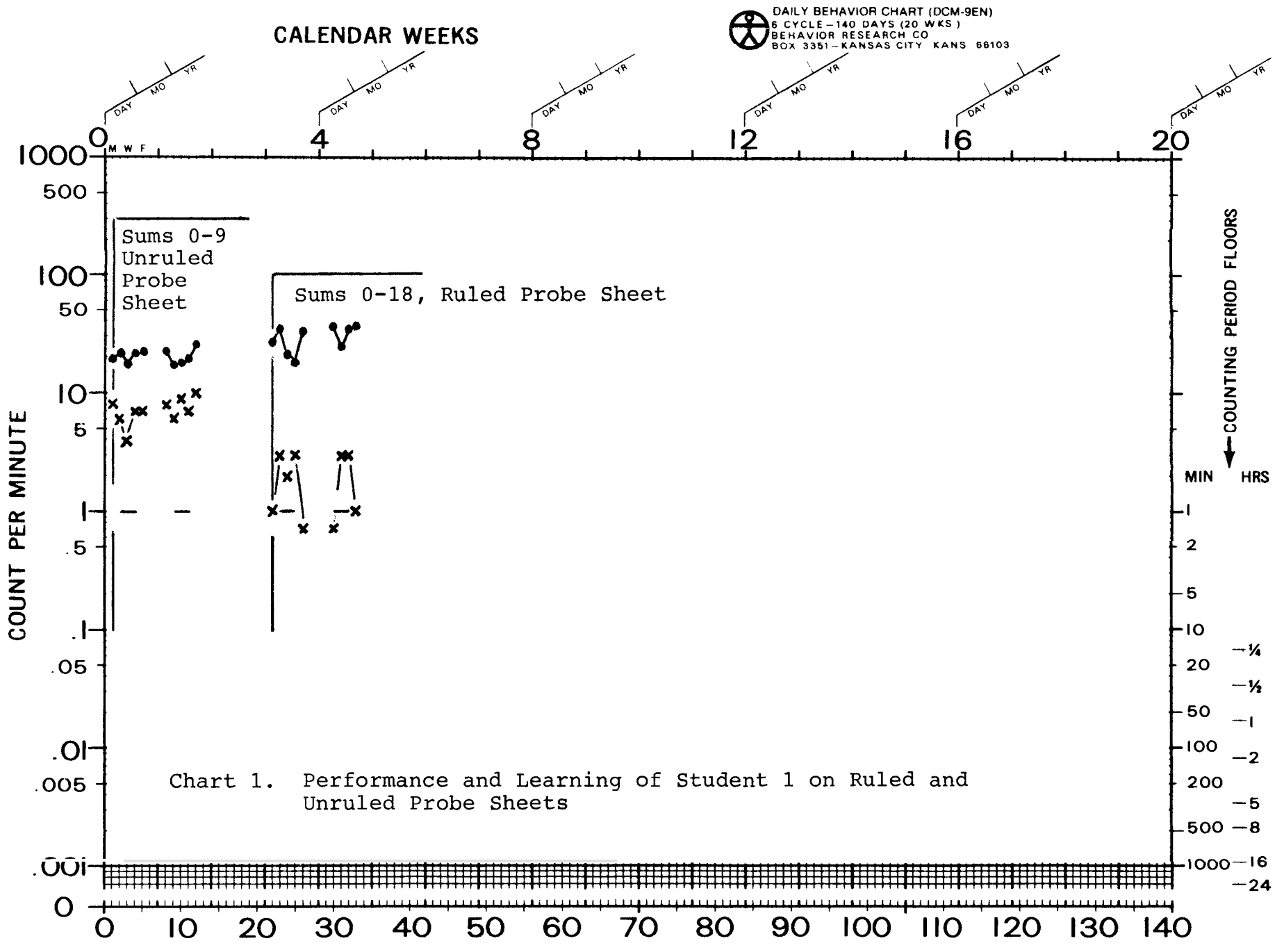

Chart 1. Performance and Learning of Student 1 on Ruled and Unruled Probe Sheets

SUPERVISOR	ADVISER	MANAGER	BEHAVER	AGE	LABEL	COUNTED
T.S. Orloff	H. Tenenbaum/ Orloff		Student 1	7		see-write

AGENCY	COUNTER	CHARTER
Volusia Avenue School Daytona Beach, FL		T.S. Orloff

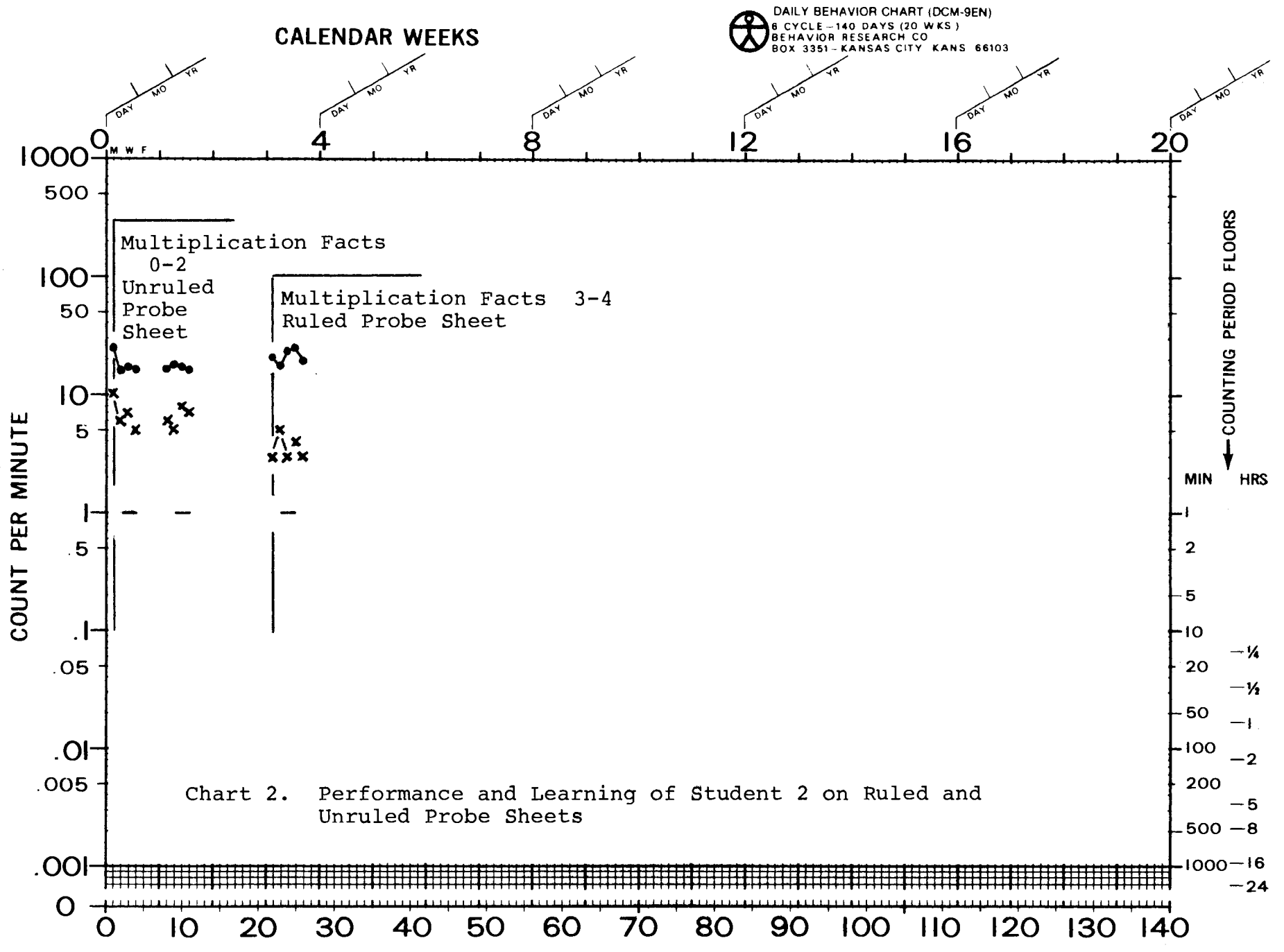

Chart 2. Performance and Learning of Student 2 on Ruled and Unruled Probe Sheets

Orloff	Tenenbaum/Orloff			Student 2	8	see-write answers
SUPERVISOR	ADVISER	MANAGER		BEHAVER	AGE	COUNTED
Volusia Avenue School	Daytona Beach, FL			T.S. Orloff		
AGENCY			COUNTER	CHARTER		

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Table 1

The Median Accuracy Ratios for Unruled and Ruled Probe Sheets

Student	Probe Sheet	Week	Median Accuracy Ratio
1	Unruled	1	x2.1
	Unruled	2	x2.2
	Ruled	1	x2.7
	Ruled	2	x3.2
2	Unruled	1	x2.8
	Unruled	2	x2.6
	Ruled	1	x6.7
	Ruled	2	x8.0

For student 1 there was an increase in celeration for corrects, a decrease in celeration for errors, and a higher accuracy ratio when the ruled probe sheet was used. For student 2 the error frequencies and the accuracy ratios also reflect an advantage for the ruled probe sheet.

The data presented here begins to make a case for careful examination of the construction of probe sheets. By simply decreasing the response area, students wrote answers more accurately and in one case more fluently.

Probe sheet construction may take on many forms. For example, teachers may want to make probe sheets that are used after a student acquires an initial skill. These probe sheets may have the first and the second lines filled with the exact problems that the teacher used while training the student. The next lines might consist of similar problems, varying in one aspect.

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