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## *Chart-sharing*

### **A COMPUTERIZED MATH DEFICIT REMEDIATION**

**Donna McCarthy-Jensen**  
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North Marion Middle School

Paul is a twelve year old learning disabled student. He came to the North Marion Middle School resource room for daily instruction over a three-month period last winter until his family moved out of the school district.

In assessing his math skills, we found that Paul was proficient in basic addition and subtraction facts. He understood the concept of multiplication, but made many errors in see-say multiplication facts.

We had access to Radio Shack's TRS-80 hardware and John Trifiletti's Spark 80 Computerized Courseware for Instruction in Mathematics. This software program presents basic math skills in a Precision Teaching format. Individual skills are timed, with the number of correct and incorrect digits typed per minute recorded. When an incorrect answer is typed, the student is instructed to try the problem again. If a second incorrect answer is typed, the machine flashes the correct answer.

Paul had access to the computer for an eight to ten minute time period four days per week. He was put on the random X2 drill in January. As seen on Chart 1, Paul began in the acquisition stage of learning, completing 29 digits correctly with 12 errors in one minute. After four days with no sign of improvement, an intervention was made: Paul was told that he could earn "computer game time" if his corrects went up and his incorrects went down. Over four weeks, Paul's corrects accelerated at the rate of X1.3 per week to 50 digits per minute. This correct frequency was almost exactly the same as his multiplication tool movement frequency. His incorrects decelerated during the first week and "leveled off" at about three per minute.

We are very excited by the results of computerized instruction skill drills. Precision Teaching programs can take a student to proficiency if the prerequisites for learning the specific skill exist. Perhaps best of all, students enthusiastically approach each computer session.

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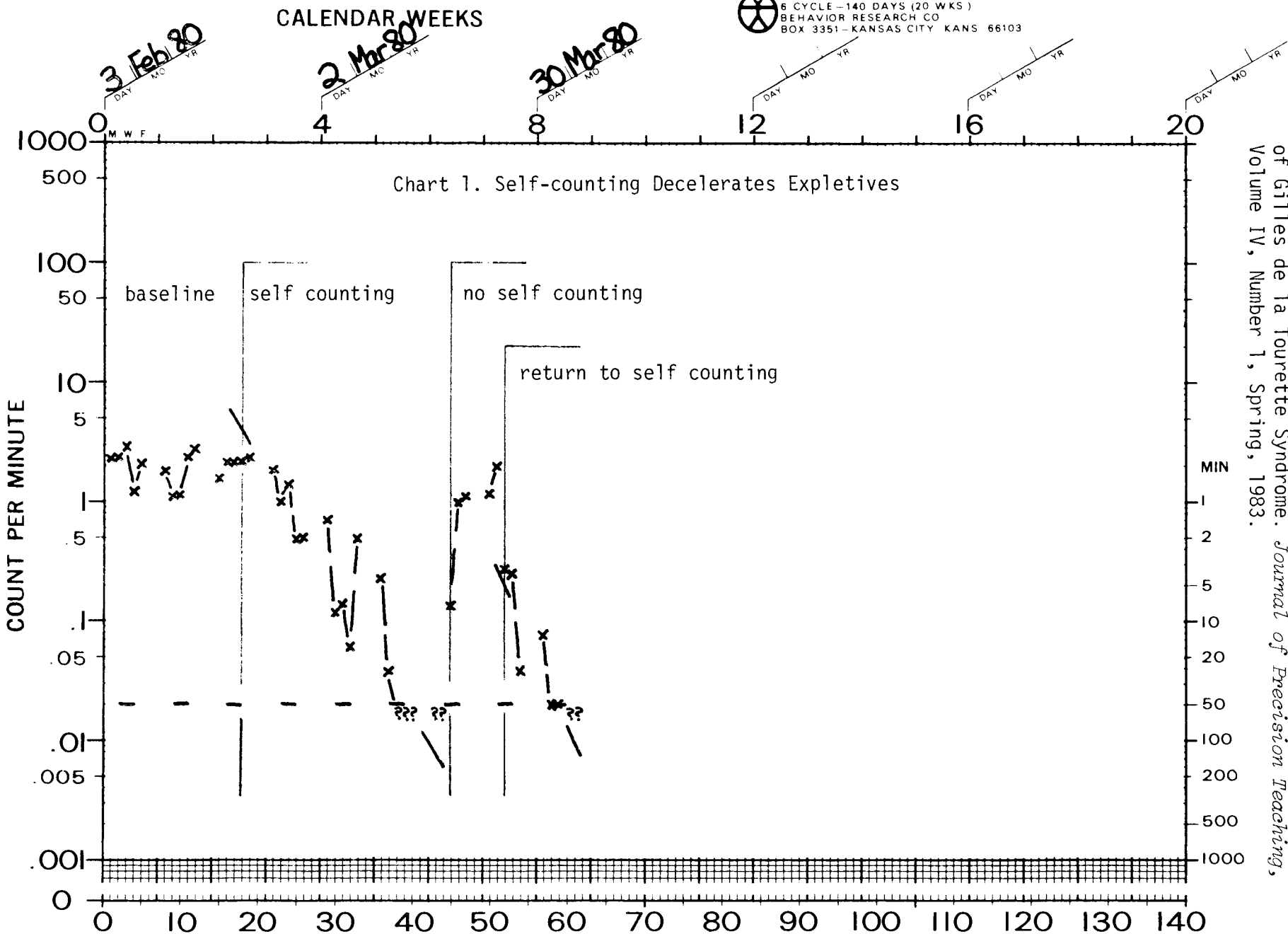
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### **SELF-COUNTING IN THE TREATMENT OF GILLES DE LA TOURETTE SYNDROME**

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Gilles de la Tourette syndrome is characterized by a high rate of involuntary physical tics and utterances which are often vulgar. The subject in this investigation was a 12 year old student who suffered from this condition. His classroom behavior was adversely affected by a high rate of utterances of an expletive. As indicated on Chart 1, an observer recorded the number of times this word was said during a 50 minute class period. An initial baseline phase was



Evans, William H. and Evans, Susan S. Self-counting in the treatment of Gilles de la Tourette Syndrome. *Journal of Precision Teaching*, Volume IV, Number 1, Spring, 1983.

W. Evans			SUCCESSIVE CALENDAR DAYS	( )	12	says expletive	
SUPERVISOR	ADVISER	MANAGER		BEHAVIOR	AGE	LABEL	COUNTED
Alachua County Public Schools		Gainesville, Florida		W. Evans			
DEPOSITOR	AGENCY	TIMER	COUNTER	CHARTER			

followed by a self-counting procedure in which the subject counted and recorded each utterance of the expletive. The number of expletives during this intervention decelerated at the rate of /5.5 per week. The last 5 data points indicated zero expletives during the class period. A baseline phase was reinstated and produced an immediate and rapid acceleration of expletives. Due to this rapid increase, the self-counting procedure was reintroduced. During this phase, the expletives decelerated to zero at the rate of /10 per week.

These data suggest that self-counting may be an effective means of treating individuals who have been diagnosed as having Gilles de la Tourette syndrome. Further research is needed, however, to determine if self-counting can reduce the frequency of other manifestations of this disorder.

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### WE WERE SPELL BOUND

Denise M. Wright  
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On my initial visit to Fairview Middle School's Specific Learning Disabilities class, it was brought to my attention by one of the teachers that Lavoris, a sixth grade student, consistently received failing scores on weekly spelling tests. These tests were given in Lavoris' Language Arts class. The reason for the failing scores was due to the omission or insertion of letters in words, producing a high frequency of spelling errors. As a result of this information, I decided to work with Lavoris for two hours per week during a six week period, implementing various teaching strategies to increase the accuracy of his spelling.

To achieve the ultimate goal of increasing Lavoris' hear word/write word spelling (the method used during the weekly spelling tests), three strategies were implemented. A record of Lavoris' progress was kept using the Standard Celeration Chart. During the first weeks of data collection, I felt it was necessary to assess the number of words Lavoris could see/say from a selected list of 60 words. On each ten minute timing, Lavoris correctly see/said 20 of 60 words, with a frequency of 2 correct and 4 incorrect words per minute. These results indicated that Lavoris could not see/say the

selected words accurately.

In view of the difficulties Lavoris had, the use of picture cues was implemented as the first teaching strategy. One picture cue, selected from a magazine or drawn by Lavoris, was paired with the word it represented. Lavoris' task was to look at each picture and orally spell the word represented. With each succeeding session, the total number of pictures presented increased. Lavoris' see picture/say word spelling accuracy improved (see Chart 1).

Then, I felt it was necessary for Lavoris to advance to the next steps in achieving our goal of hearing words/writing words correctly. Therefore, new strategies were implemented. Lavoris was asked to select 30 words to work on during the next phases. He chose 34 words. This selection established the static aim of 34 words to be spelled accurately during movement based measurements.

All picture cues were omitted during the next two phases. For a period of one week, data were collected to assess Lavoris' hear word/say word spelling accuracy. During the final week of data collection, I assessed hear word/write word. Chart 1 shows that Lavoris' accuracy improved.

Lavoris and I were both extremely proud of his steady progress; however, our proudest moment came in a bitter-sweet victory. Lavoris attained the established static aim of 34 spelling words written correctly on the day I was scheduled to complete data collection and conclude our sessions. Had time permitted, the next phase would have concentrated on the use of strategies to increase Lavoris' speed in completing this task.

I decided to compare the spelling performance of Yolanda, a sixth grade student who was not enrolled in a special education class, with that of Lavoris. Yolanda was described by Lavoris' Language Arts teacher as an "average sixth grade speller." Each day during the three day period of data collection, I said the same 34 words to Yolanda in random order. Yolanda was asked to write the words as fast and accurately as possible. From Chart 1 it is evident that Yolanda's and Lavoris' speed performances were similar. In addition, Lavoris was considerably more accurate.

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