

Cracking The Code: Decoding Really Does Influence Comprehension

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Literacy is a national priority. No Child Left Behind mandates that all students progress in the curriculum, meeting grade level standards in both Language Arts and Mathematics. Demands of modern life require proficient reading and writing skills. Poor literacy skills have a dramatic effect on the social issues of criminology, homelessness, underemployment and health care coverage. However, reading problems can be addressed. We need to shift from the conventional thoughts and practices about how children learn to read to a more focused awareness of the research evidence. We recognize the urgency of creating readers out of every student prior to leaving third grade. The Committee on the Prevention of Reading Difficulties in Young Children published their findings in *Preventing Reading Difficulties in Young Children* (1998). Their research, funded by the National Research Council, points to excellent instruction as the basis for guaranteeing adequate progress in reading and writing. Their review of different programs, such as Success for All and other Title I Reading programs, suggests that no single-tiered approach is adequate to increase success for all students. Effective instruction is defined as instruction that meets the needs of each learner. Some of the barriers to achieving success include inconsistencies in both instruction and curriculum, lack of training of the educators, and lack of time spent instructing students at their instructional levels. "The purpose of providing extra instructional time is to help children achieve levels of literacy that will enable them to be successful through their school careers and beyond" Snow, Burns and Griffin (1998, p. 247). Based on the scientific research (Gunning, 2002; Morrow, 2001; Torgeson, et.al., 2001), interventions for struggling readers include additional, targeted and intensive reading instruction provided to students who continue to struggle with learning to read and write despite conventional instruction. As indicated, the conventional belief in the industry is that it is too late after third grade to remediate students who struggle with reading without a massive number of hours being devoted to their instruction. The program, *Cracking The Code*, developed by Rick McAtee, seeks to provide the targeted, intensive instruction to struggling readers necessary to achieve within a 30 to 45 minute time frame. Designed for those students who have not succeeded with traditional reading instruction, *Cracking The Code* is ideal for students in grades three through adult learners who struggle with decoding.

Cracking The Code is a pattern-based decoding system in which readers are taught to recognize the pattern of symbols in the written language. By using this systematic approach, the readers do not have to remember or deal with exceptions to the traditional phonic rules.

The "Big 5" in reading instruction includes Phonemic Awareness, Phonics, Vocabulary, Comprehension and Fluency. The ability to comprehend and read fluently is directly related to the ability to decode the text and to understand the language, the vocabulary. The ability to decode text is dependant on one's facility with phonics, which is directly related to a student's phonemic awareness, the ability to manipulate units of sound. For some, low English language skills become the barrier to fluent reading. For the vast

majority of students who struggle, however, the inability to efficiently decode the text is their greatest barrier to comprehension and fluency. Share (1995) states, "Becoming skilled in phonological decoding provides the child with a self-teaching mechanism that, along with oral vocabulary knowledge and context, is useful for learning to read words that they have not previously encountered. After a few such correct decoding, these words can be recognized quite automatically." In summary, students who read poorly do not often succeed in school or in life, which in turn affects self-esteem and willingness to persevere on difficult tasks. It is critical that all students gain skill in reading.

The question then becomes: What will happen to a student's comprehension if the ability to decode text is enhanced? Thornydale Elementary School in the Marana Unified School District in Arizona agreed to allow the program, *Cracking The Code*, to be used over an eight week period with 27 of their third and fourth grade Title I/Remedial Reading students. By definition these students are significantly behind their grade level in reading skills, by at least one year or more. Thirty to forty-five minutes daily, four days per week for eight weeks was devoted to this project. On day one, each student was administered the Scholastic Reading Inventory at his/her assigned grade level. The test measures reading comprehension only. Eight weeks later, an alternate form of the Scholastic Reading Inventory was again administered. Eighty-five percent of the students in the program were present to take the post assessment. For each administration, students were allowed only thirty minutes to complete the test. This test is a standardized test that yields a lexile level score.

During the eight weeks between test administration, students were instructed using the *Cracking The Code* program developed by Rick McAtee. The teacher's manual is specific in its directions for program delivery. Independent observers (2 reading teachers and 1 classroom teacher) monitored the process for adherence to the manual. Group size ranged from nine to eighteen students. The demographics of the students participating in the project are presented in Table 1.

Table 1. Demographics of Students Participating in Project

	W	H	I	A	B	ELL	SPED	# Retained
Group A (9 students)	7	1	0	0	1	0	2	3
Group B (18 students)	9	9	0	0	0	1	6	8

Comments offered by the observers indicated surprise at the growth exhibited by students throughout the process. One reading teacher stated, "I had been working with struggling readers in third grade all year on phonics and decoding strategies. Some of these third graders continued to struggle throughout the year, showing minimal gains. They had difficulty recalling and remembering vowels, consonants, and applying phonetic rules. After having the *Cracking The Code* program for just two weeks, these students showed marked improvement. They were able to show improvement in identifying vowels, consonants, and applying skill rules. It was so exciting watching these struggling readers

gain confidence and regain enthusiasm! *Cracking The Code* really helped these struggling readers end their school year on a very positive note.” Additionally, she commented, “I saw the fourth grade struggling readers become more actively involved with class participation with the *Cracking The Code* program. This program helped these students gain back excitement, confidence and the joy of learning, while eliminating negative behaviors that struggling students sometimes demonstrate.” Finally, the classroom teacher commented, “The program allowed the students to practice the patterns to the point that they remembered them without difficulty. They were truly successful in the program and loved every minute of it”. The confidence level of the students was visibly enhanced.

The proof, however, would be in the comprehension scores of the students on the post-tests although comprehension was not addressed at all by the program. Table 2 presents the results.

Table 2. Pre- and Post- Test Scores - Scholastic Reading Inventory (Forms A and B)

Group A					Group B				
Students	Pre	# Attempted	Post	# Attempted	Students	Pre	# Attempted	Post	# Attempted
A	550	22	660	29	J	550	22	705	35
B	485	21	595	26	K	205	26	485	40
C	615	26	910	40	L	530	27	705	37
D	305	10	810	40	M	335	40	660	40
E	780	29	1035	40	N	530	24	755	40
F	460	18	615	24	O	160	7	205	8
G	415	14	absent	absent	P	485	19	485	18
H	660	32	950	40	Q	530	19	595	23
I	160	2	absent	absent	R	365	15	635	40
					S	530	20	840	40
					T	705	33	780	40
					U	70	12	105	32
					V	570	40	495	40
					W	380	21	355	21
					X	280	14	400	26
					Y	PP	20	140	40
					Z	absent	absent	450	23
					AA	absent	absent	300	15

As indicated above, 86% (19 of 22) of the students demonstrated gains in comprehension as well as gains in the number of items attempted within the thirty minute testing window. Two students attempted the same number of items, but showed a loss on the comprehension measure, and one child attempted one item less, but scored the same in comprehension. Overwhelmingly, these students who have historically made little to no progress each year are showing gains in comprehension with only eight weeks of instruction in decoding.

When looked at more closely, additional trends were noted. The program began by ensuring that students could correctly identify vowels and consonants. On day one, none of the students could accurately identify vowels and consonants. By day four, approximately half of the students were accurate when discriminating between vowels and consonants. By day seven of the intervention, 100% of the students were able to correctly identify vowels and consonants without error.

As students were then introduced to the vowel patterns, their ability to recall those patterns and identify them in words increased dramatically. The program test following instruction of the one, two and three vowel patterns yielded 100% accuracy for all students. Next, “o” patterns and “r” patterns were taught. Students again all scored 100% on the test of the “r” patterns. Eighty-five percent initially scored 100% on the test of “o” patterns, but after two subsequent mini-lessons, all students scored 100%. Interestingly, the “r” patterns were taught and the tests administered by the reading specialist and the classroom teacher using the program manual without the presence of the program developer.

Cracking The Code was also piloted in a minimum security prison for adult men, Westmorland Institution, in New Brunswick, Canada, taught by the regular teacher of the inmates. She writes, “In piloting the program here at Westmorland Institution, I realized that I would not be expecting this tool to be useful in assisting all my students in decoding words to read, as many of my students were already readers. (reading at a 6-7 grade level) In piloting the program, the intentions were to help the struggling readers (grade 2 or below) decode and to enlist the aid of the other students in finding out if there were problem areas or instances where the system didn't seem to work. Along the way, I discovered something that was quite unexpected, but nevertheless welcome. I discovered that it was an excellent tool for improving spelling. With the patterns, the students just got it. Many of them asked why they were not taught this system in elementary school. Some of them were held back from making progress because they could not spell, hence they could not write. Many inmates are very reluctant to write something that they know is not correct, even if they are told not to worry about it, it can be edited. *Cracking The Code* enabled them to move forward with their writing. One inmate said that although he was still incarcerated, he was now free to express himself in letters to loved ones on the outside, something he had been unable to do before. What freedom!” She continues, “Many of the inmates identified problems that their own children have come up against. In the desire to return home to their families armed with help for their struggling children, these inmates have excelled at the program, concentrating their efforts on learning as much as possible. Some paroled inmates have phoned to ask to have copies sent to them, received the copies and phoned back to say that their children are doing better.” Additionally, she states, “We have had contact with a woman who was tutoring a car accident victim who had to relearn. This woman came in to the prison and was instructed by two inmates who were adept at the program. She said that it was an excellent tool for this grade 11 student, who flew through the material and has been able to transfer these skills to other subject areas in her curriculum.” Finally, she summarizes, “There are some guys who begin the program quite skeptically and do not anticipate getting anything out of it. These guys are usually surprised by how easily they adapt to the

program, how successfully they are able to use it and how much they look forward to doing it each day. Some ask right at the onset if they will have to memorize the patterns and when they are told that they will not have to memorize them but they will memorize them along the way, they say they will not memorize anything that they don't absolutely have to. Later these same guys will proudly display how effectively they have "learned" the patterns. Some have asked the question of why this system is not available now in every school in North America."

I have also personally worked with a struggling reader in the sixth grade with the *Cracking The Code* program. Working with her in a tutoring setting only one day each week for approximately eight weeks resulted in her confidence level increasing to the point that she was recognized for the Most Improved in her classroom and made the Honor Roll for the last quarter of school. She eagerly embraced the program, immediately seeing its application to her reading for other subject areas. She enjoyed pulling words from her Science text, that previously she would simply skip, and marking the patterns so that she could then read the unfamiliar words.

Mr. McAtee has spent the last ten years developing and refining his product. As a first-hand observer, I have watched struggling readers eagerly embrace this program and begin to unravel the mystery of the printed word, getting excited about reading. Non-readers are experiencing for the first time the joy of reading.

References

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