

Motivating High School Special Needs Students with Significant Reading Problems



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Abstract

Little has been written about motivating Developmentally Handicapped (DH) adolescent students to read. Reading problems may be a result of a combination of learned helplessness and intellectual limitations. The question posed was whether or not motivation affected the reading achievement of special needs adolescents. Students enrolled in a Hospitality Program at the Delaware Area Career Center (a job-training program school-to-work program in Delaware, Ohio) participated in the research study as a classroom project to assess the effects of external and internal motivation. Students read for two, 30-minute sustained silent reading classroom sessions per week. Two motivational strategies were used, intrinsic and extrinsic, in four-week long segments. Students received rewards and incentives for reading during the extrinsic condition and were able to select their own reading material during the intrinsic condition. Students liked selecting their own reading and read more pages when they did so but did not read more accurately or fluently during the four weeks of the intrinsic condition.

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Motivating High School Special Needs Students with Significant Reading Problems

What role can intrinsic motivation play?

Struggling Readers



Because students with special needs often experience difficulty with reading, they may have lost the desire to read. As a teacher of DH high school students, I needed to find strategies that would motivate my students. I teach a vocational job-training program, called Hospitality, where DH adolescents are taught job skills while volunteering on a real job site.

The term “struggling reader” has a number of different meanings. It is sometimes used to refer to youth with clinically diagnosed reading disabilities as well as those who are “at-risk,”

underachieving, unmotivated, disenchanted, or generally unsuccessful in school literacy tasks that involve print-based texts (Alvermann, 2001). Many struggling readers are disengaged from reading and have a low motivation for reading. They may lack the necessary confidence to improve their ability to read and may exhibit self-handicapping strategies such as procrastination and work avoidance. They have come to learn that they are not expected to succeed and protect themselves through a type of self-fulfilling prophecy (Guthrie & Davis, 2003).

Reluctant readers are not born; they are made (Jobe & Dayton-Sakari, 1999). This is both a true and false statement for the student with developmental handicaps. Often times, this student has learned to fail, yet the developmental handicap, which is present at birth, continues throughout life and greatly affects ability to read. The reading problems are a result of a combination of learned helplessness and intellectual limitations.

Students at all levels of learning enjoy making their own reading choices



Motivating Struggling Readers

Motivation is an internal state that arouses, directs, and maintains behavior. More commonly thought of as a mental force that helps a person achieve a goal, it is the key to academic success (Sternberg & Williams, 2002). There is some evidence that intrinsic motivation is related to a child's ability to comprehend text (Wang & Guthrie, 2004). Intrinsic motivation is the desire to do things from within, without rewards; it can empower people to achieve remarkable

results. Intrinsic motivation underlies curiosity, involvement and the preference for challenge. If possessed at a young age, it can determine success on later reading tasks (Wang & Guthrie, 2004).

Extrinsic motivation is the desire to do something for the tangible rewards received, such as grades, praise or money. It underlies the five external constructs of recognition, grades, social, competition and compliance (Wang & Guthrie, 2004). Extrinsic motivation is the most common form of motivation used with young children and special needs students. Teachers are groomed to use external motivation with students, especially students with special needs. Extrinsic motivation is powerful because it can cause immediate attention and effort, but it is limited because it ceases when the task is complete. Unlike intrinsic motivation, extrinsic motivation cannot regenerate itself (Rasinski & Padak, 1996).

One of the key factors in motivating students to read is a teacher who values reading and is enthusiastic about sharing a love of reading with students (Morrow, Gambrell & Pressley, 2003). Motivation is especially important in working with students whose attitudes may be negative and/or resistant (Savage & Mooney, 1979). Teachers hope their students will be intrinsically motivated to participate in reading. They need to demonstrate to struggling readers how to be self-motivated through the incorporation of choice, control, challenge and purpose with daily classroom routines (Meyerson & Kulesza, 2002). Children's' reading is influenced by the integration of intrinsic motivation and extrinsic motivation. There appears to be a positive correlation between intrinsic motivation, extrinsic motivation and level of text comprehension of text (Wang & Guthrie, 2004).

Teachers Make a Difference

Teacher enthusiasm and modeling can have positive lifetime results for the student who has a history of failure (Savage & Mooney, 1979). Demonstration is a powerful teaching tool in the classroom. If the teacher



is excited and enthusiastic about both their abilities and the topic of instruction, they can transmit a love of learning, giving the special needs learner a sense of belief that they too, can be successful in learning. They can learn to appreciate reading from teachers who genuinely love to read (Rasinski & Padak, 1996). Teachers need to help the special needs student develop new strategies and learn to monitor their choice of strategy. Teachers also need to read aloud to students, even at the high school level. When a book is read aloud, the teacher provides the students with an in-common text experience (Miller, 2002; Beers & Samuels, 1998).

Providing all students with exemplary classroom literacy instruction is an essential first step in addressing the needs of children who struggle with reading (Morrow, Gambrell & Pressley, 2003). A warm and supportive environment is essential. It is vital that the teacher discover what is special and unique about each and every student. Knowing students as individuals allows teachers to make good book selections. Classrooms need to be bright, colorful and rich with print wherever the student looks. High-interest, low-vocabulary materials such as comics, peer recommended materials, and popular music as well as “real life” materials such as job applications and Internet-related reading are additional ways to encourage struggling readers to engage with print.

Students need to be able to choose from a wide variety of books and reading materials available within the classroom (Burns, 1999). A teacher needs to help students select materials based on the size of the print, the number of words on a page, the pictures and the difficulty of the words (Miller, 2002). Time needs to be set aside during the school day for students to make reading choices. Print-rich environments can include materials such as newspapers, magazines, high interest books, word walls, a classroom lending library and student-created materials. A love of reading can be encouraged when students are given the opportunity to take home books to share with their families. This encourages the student to be responsible and involve parents in the process (Green, Kandyba, McDonald & Stevens, 2000).

Methodology

Students

I included all of the students enrolled in my Hospitality Program at the Delaware Area Career Center (a job-training program school-to-work program in Delaware, Ohio) during the 2003-2004 academic year: four Level I students (16-18 years old) and five Level II students (18-20 years old). Level I students consisted of three females and one male. Level II students consisted of four females and one male. All students participated in the research study as a classroom project. Both parental and student permission were obtained prior to the study.

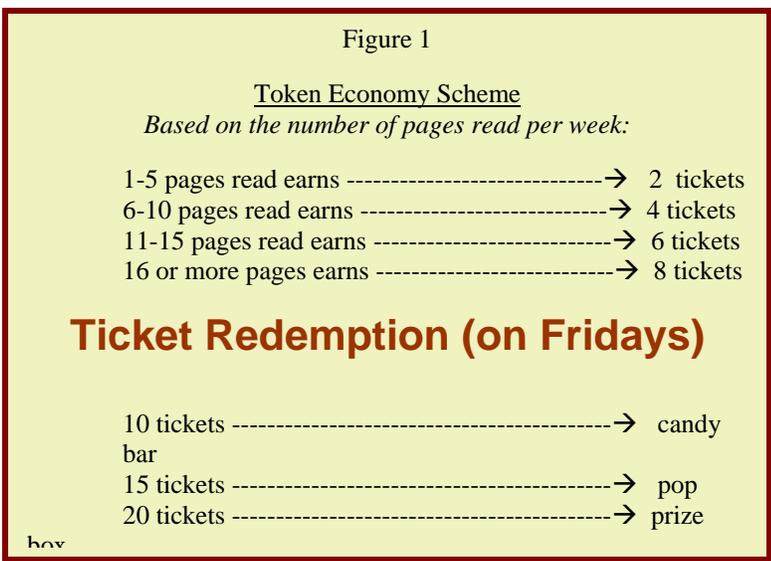


All of the students in the Hospitality Program had been classified as Developmentally Handicapped on their Individualized Educational Plan (IEP) and struggled with reading and/or reading comprehension. The reading scores of the students were in the elementary level range.

Procedures

Students read for two, 30-minute sustained silent reading classroom sessions per week. The research was introduced as a classroom project. Students received credit for participation.

Two motivational strategies were used, one tapping internal motivation (intrinsic) and the second tapping external motivation (extrinsic). These strategies were introduced to both classes of students in two, four-week long segments, for a total span of eight weeks.



Under the external condition, students received rewards and incentives for reading. The Token Economy Scheme that was used to reward the students can be found in Figure 1.

During the four-week extrinsic motivation segment, students read pre-selected stories about teenagers from the *Chicken Soup for the Soul* series books. Tickets were handed out daily to the students during the reading session involving external motivation.

Under the internal condition, reading selections were based on student interest. During the four-week intrinsic motivation segment, students chose book selections on poetry, non-fiction, fiction, mystery, suspense, comics and other forms of young adolescent literature. The selections chosen by students are listed in Figure 2.

Hospitality I students first participated in intrinsic motivation for weeks 1-4, while Assessments

Curriculum Based Measurement (CBM) was used with students during weeks one, four and eight. All excerpts were taken from the textbook, *Hospitality Today* (1994). All CBM samples were of consistent readability and difficulty levels. CBM samples were collected at the beginning, middle and end of the eight-week project. Students read the passages aloud and were scored on fluency and accuracy. Students read for a total of three minutes, during which time reading errors, omissions and mispronunciations were noted to determine reading fluency.

Figure 2

Student Choices

- Blume, J. (1990). *Fudge-a-mania*. New York: Penguin Putnam Books for Young Readers.
- Canfield, J., Hansen, M.V., Becker, M. & Kline, C. (1998). *Chicken soup for the pet lover's soul: stories about pets as teachers, healers, heroes and friends*. Deerfield Beach, FL: Health Communications, Inc.
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- Cormier, R. (1974). *The chocolate war*. New York: Random House, Inc.
- DeFalco, T. (2001). *Spiderman*. New York: DK Publishing.
- Desetta, A. (2000). *The struggle to be strong: True stories by teens about overcoming tough times*. Minneapolis: Free Spirit Publishing.
- Jacques, B. (1991). *Seven strange & ghostly tales*. New York: Penguin Putnam Books.
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- Naylor, P. R., (1996). *Shiloh season*. New York: Aladdin Paperbacks.
- Olsen, M.K. & Olsen, A. (2003). *Our story*. New York: HarperCollins Publishers, Inc.
- Olsen, M.K. & Olsen, A. (2002). *So little time*. New York: HarperCollins Publishers, Inc.
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- Peck, R. (1978). *Father figure*. New York: The Viking Press.
- Pelzer, D. (1997). *The lost boy: a foster child's search for the love of a family*. Deerfield Beach, FL: Health Communications, Inc.
- Rowling, J.K. (1997). *Harry potter and the sorcerer's stone*. New York: Scholastic Press.
- Seuss, Dr. (1990). *Oh, the places you'll go!* New York: Random House, Inc.
- Silverstein, S. (1981). *A light in the attic*. New York: Library of Congress.
- Silverstein, S. (1974). *Where the sidewalk ends*. New York: Library of Congress.
- Spinelli, J. (1990). *Maniac magee*. New York: Library of Congress.

I designed a reading interest survey to tap students' attitudes toward reading. Students answered eleven survey questions, selecting from four answer choices. Students received the reading interest survey at the beginning, middle and end of the eight-week project. For the purpose of measuring differences in student's attitudes towards reading under intrinsic and extrinsic conditions, two questions were selected and studied:

How do you *feel* about reading a book when you have some free time?

- Great! It's one of my favorite things to do.
- It's ok
- Sometimes maybe
- Forget it!

How do you *feel* when your teacher assigns you some reading?

- Great! It's one of my favorite things to do.
- It's ok
- Sometimes maybe
- Forget it!

Although both questions measured the student attitudes, towards reading, the first question aligned with the intrinsic condition because it measured self-selected reading, while the second question focused on assigned reading, an attribute of the extrinsic condition.

I also designed a reading feedback form that was filled out by students after each reading period (see Figure 3). Students used the form to answer the same four questions about each reading selection. The form asked students to evaluate their level of interest, comprehension and knowledge for each session. In addition, they were asked to record the number of pages read.

Figure 3

Reading Feedback Form

Name _____ Number of Pages Read _____

Directions: Answer the statements below.

The title of the reading was _____

1. The reading was:
 - _____ very interesting
 - _____ somewhat interesting
 - _____ not what I expected
 - _____ boring
2. Something *new* I learned was _____
3. I found the reading to be:
 - _____ I understood all that I read
 - _____ I understood some of what I read
 - _____ The reading was somewhat difficult; there were some words that I did not know
 - _____ I had a lot of difficulty with the reading; there were many words that I did not know
4. I would rate this reading as:
 - _____ great
 - _____ good
 - _____ ok
 - _____ boring

Results

Productivity

Hospitality I Students. Renee read more pages when she was able to choose her reading material during the intrinsic segment. When Renee's reading was pre-selected by the teacher, during the extrinsic segment, her volume of reading decreased. The number of pages read also decreased when Renee transitioned from intrinsic to extrinsic.

Jessi too read more pages when she was able to select her own reading material. The number of pages Jessi read decreased when reading was selected for her despite the fact that rewards were offered. The number of pages read also decreased when Jessi transitioned from intrinsic to extrinsic motivation.

Jennifer dramatically increased and then decreased the number of pages she read when she first chose her reading during the intrinsic segment; however the number of pages at the end of the intrinsic segment was greater than at the beginning. Jennifer gradually increased the number of pages read when offered rewards during the extrinsic segment. The number of pages read decreased when Jennifer transitioned from intrinsic to extrinsic motivation.

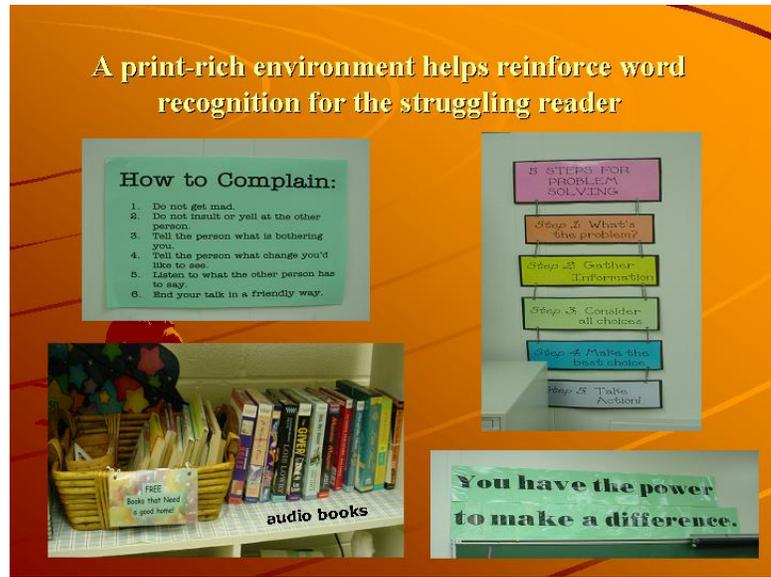
Brad made gains during both motivational segments, despite an absence during the extrinsic portion of the study. The number of pages read decreased when Brad transitioned from intrinsic to extrinsic motivation.

Hospitality II Students. Ali read more pages when she was able to choose her reading material during the intrinsic segment, although she ended up the segment with reading fewer pages than when she started and equaling the number of pages she ended up when reading selections were made for her.

Kathy consistently read more pages when she was able to choose her own reading material. From start to finish, she more than doubled the number of pages that she read.

Tiffany made the largest gains when the reading selections were made for her. She actually decreased the number of pages that she read when she was given the opportunity to choose her own reading material.

The number of pages that Lindsay read increased steadily during the extrinsic segment and actually decreased during the intrinsic segment. Lindsay seemed to be motivated by the external rewards.



Above all, I had hoped that intrinsic motivation would work for my students.

Although Dan increased the number of pages over the four weeks of extrinsic reinforcement, he actually read a higher number of pages during the intrinsic segment. Dan showed a strong preference for selecting his own reading material.

Average Pages Read Per Child Per Condition. Table 1 shows the average number of pages read by all Hospitality during each condition of reinforcement. All but one student read more pages, on average, during the intrinsic condition than the extrinsic condition. Four students more than doubled their average number of pages and one student read about four times the average number of pages during the intrinsic condition. Results again showed that students seemed to enjoy picking their own reading selections.

Table 1
Average Pages Read Per Child Per Condition

Child	Extrinsic Motivation	Intrinsic Motivation
Renee	7	19
Jessi	8.75	32.5
Jennifer	14	32.25
Brad	7.4	9.4
Ali	10.37	12.5
Kathy	13.5	18.25
Tiffany	19	9
Lindsay	18.9	19.3
Dan	12.5	26.25

Attitude Survey. Table 2 shows the attitudes of the students before and after the two conditions of reinforcement. When measuring reading attitudes, **Great!** Was considered a positive answer, while **Ok**, **Maybe** and **Forget it** were perceived as negative responses (in descending order). Student expressed more positive attitudes when surveyed about their own reading selections (intrinsic). Seven out of nine students' attitudes towards reading increased during the intrinsic segment, while only one student's attitude improved after the extrinsic 4-week segment. Five students expressed positive attitudes after making their own reading selections, while only two had positive attitudes after reading selections that were pre-selected by the teacher.

Table 2
Pre-Post Attitude Results

Response to:	<i>How do you feel about reading a book when you have some free time?</i>		<i>How do you feel when your teacher assigns you some reading?</i>	
	Pre- Intrinsic	Post- Intrinsic	Pre-Extrinsic	Post-Extrinsic
<i>Hospitality I</i>				
Renee	Maybe	Maybe	Maybe	Maybe
Jessi	Great!	Great!	Great!	Great!
Jennifer	Ok	Great!	Ok	Great!
Brad	Ok	Great!	Ok	Ok
<i>Hospitality II</i>				
Ali	Maybe	Ok	Ok	Ok
Kathy	Ok	Great!	Maybe	Forget it
Tiffany	Maybe	Ok	Forget it	Forget it
Lindsay	Forget it	Ok	Ok	Ok
Dan	Forget it	Great!	Ok	Forget it

Curriculum Based Measurement (CBM) Results. Table 3 shows the number of words read correctly across the two conditions of reinforcement. There seemed to be no order effects, nor were there any effects for age (younger versus older students). Students gained reading speed when reading for rewards (extrinsic), yet lost speed when selecting their own reading selections (intrinsic).

Students lost an average of 59 wpm with internal motivation (intrinsic), while gaining an average of 93 wpm with external motivation (extrinsic). Although students seemed to enjoy picking their reading selections, their reading fluency decreased during the intrinsic segment.

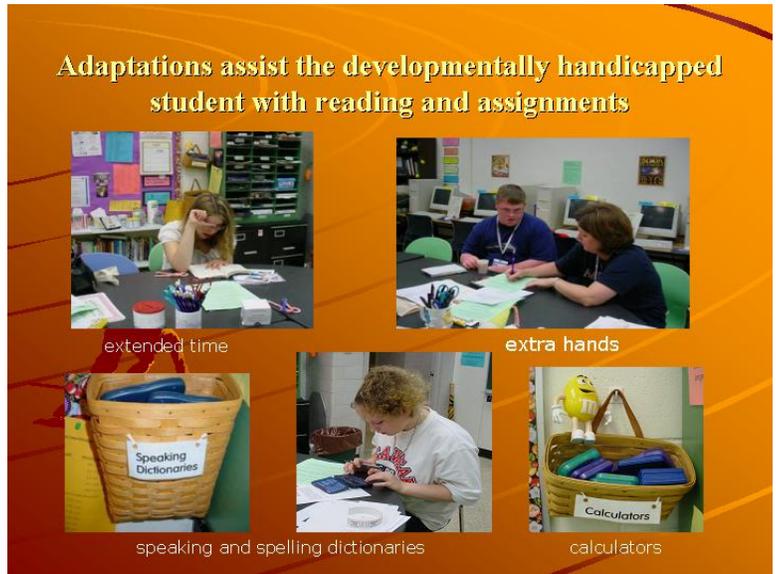
Table 3
Curriculum Based Measurement (CBM)
Correct Words Per Minute (WPM) - Gains/Losses
Across Conditions

Group	Intrinsic	Extrinsic
<i>Hospitality I</i>		
Renee	+6 wpm	+4 wpm
Jessi	-1 wpm	absent
Jennifer	-23 wpm	+12 wpm
Brad	-1 wpm	+5 wpm

<i>Hospitality II</i>		
Ali	-6 wpm	+15 wpm
Kathy	-1 wpm	+9 wpm
Tiffany	-15 wpm	+30 wpm
Lindsay	-3 wpm	+5 wpm
Dan	-15 wpm	+13 wpm

Discussion

Above all, I had hoped that intrinsic motivation would work for my students. I loved that the students' reading amount doubled. I was heartened that they liked selecting their own reading choices and hoped that they would read more accurately and fluently as a result. But that didn't happen. I truly thought the CBM scores would show a greater increase in the correct words per minute when students were given free choice to select their own reading. Student choice and independence are strong components in my teaching style. In fact, the number of words read correctly decreased under the intrinsic condition. Why would that be the case?



Perhaps when asked to read, the students reacted to the CBM passages as if they were reading for rewards. Like Pavlov's dogs, the students responded as trained. The students were taken out in the hall, one by one, to read the passages to me. I wonder if my results would have been better under the intrinsic condition if I had measured comprehension rather than word recognition. Wang & Guthrie (2004) found a positive relationship between elementary youngsters' comprehension of text and intrinsic motivation.

Even students with special needs like to make their own reading selections. I have found my students thrive when encouraged to make their own choices and have some control over their environment. However, Developmentally Handicapped (DH) students often experience difficulty with change. They are used to behavioral approaches that rely on extrinsic reinforcers. This is the traditional way teachers are trained to work with special needs students. When reading under the extrinsic condition, students received tickets for the number of pages they read during the 30-minute segment. The number of pages that they read was recorded on a progress chart that was displayed in the classroom. Each student was assigned a color on the chart, making it easier for the student to track his/her progress. At the end of the week, tickets could be redeemed for an opportunity to select a prize from a classroom gift box or independently purchase a candy bar from the school vending machine with awarded money. As expected, the students worked hard

for these rewards. Did the extrinsic condition provide a better “fit” with Curriculum Based Assessment than the intrinsic condition? I think that it did.

While teaching my students job-training skills, I encourage them to take educational risks, to reach higher than they ever thought possible and embrace change. I encourage them to be leaders, giving them opportunities to conduct classroom business meetings, mentor other students within the classroom and set personal goals. They monitor their progress and are encouraged to see mistakes as essential components to learning. Ultimately I am hoping to give them more control over their lives. After all, despite the fact that they have special needs, they must learn to fit into the real world.

It takes a large bag of tricks to entice the special needs student to read. I offer students many reading choices within the classroom: books on tape, videos and traditional books for students to check out and enjoy. Poetry, teenage stories and books with illustrations are popular choices. Students can also check out volumes of comics, teen magazines and song lyrics. When choosing books on tape, students are encouraged to check out the accompanying book, to follow along when reading.

I have found that special education students respond well to high expectations. Hospitality students are encouraged to problem solve work situations by following problem-solving steps clearly visible on the walls and sharing their written ideas with the rest of the class. The classroom is a colorful and literacy-rich environment with boldly printed classroom procedures, posters and motivational sayings. Lesson handouts are read aloud by me, yet students have their own copies and follow along.

One of the key factors in motivating students to read is a teacher who values reading and is enthusiastic about sharing a love of reading with students (Morrow, Gambrell & Pressley, 2003). As a voracious reader myself, I have read all 100+ books in my classroom’s lending library. This enables me to share my enthusiasm for reading. I also share my own favorite books with the students each year. If the teacher is excited and enthusiastic about both their abilities and the topic of instruction, they can transmit a love of learning, giving the special needs learner a sense of belief that they too can be successful in learning. They can learn to appreciate reading from teachers who genuinely love to read (Rasinski & Padak, 1996).

Reluctant readers are not born; they are made (Jobe & Dayton-Sakari, 1999). The aim in my classroom is to motivate these reluctant readers to become non-reluctant readers, valued employees and productive citizens within their communities.

I have found my students thrive when encouraged to make their own choices and have some control over their environment. However, Developmentally Handicapped (DH) students often experience difficulty with change. They are used to behavioral approaches that rely on extrinsic reinforcers. This is the traditional way teachers are trained to work with special needs students.

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