

“Dropout Rate and Reading Ability: A Comparative Analysis
Suggesting Music Therapy as an Alternative Educational Approach”

The goal of this graduate project is to discuss the public policy issue of the dropout rate, and to suggest that there is a correlation between it and reading ability. Additionally, I will examine the evidence suggesting the positive effects music therapy has on learning and reading ability, and recommend educational authorities consider its use as an additional alternative for educating “at-risk” youth with reading difficulties in the classroom. I will begin by first discussing the concern and efforts government officials are making toward improving reading and education in the United States.

Educational leaders and members of the United States government have expressed their growing concern about the alarming rate of students dropping out of high school in addition to increasingly low academic testing scores specifically in reading.

In prior years, the Bush administration enacted an educational policy called the *No Child Left Behind Act*. This act has received much criticism because many schools are receiving federal funding to help improve and strengthen their educational programs. However, their academic achievement scores have not indicated any significant changes in their students’ performance. Former Secretary of Education Margaret Spellings announced several approaches for implementing the *No Child Left Behind Act*. In an April 8, 2005 article from the *Los Angeles Times*, Ms. Spellings stated one of the new changes in legislation would “require the Department of Education to withhold federal funds from schools that fail to meet the standards.” She confirmed that there would continue to be “annual standardized tests in grades three through eight, and schools that

fail to show adequate yearly progress in test scores could be sanctioned by the federal government.”

Although this “crackdown on education” has been long overdue, there is no indication that it will help to improve the current educational programs already in place in various school systems throughout the country. In addition, there is no evidence to suggest that sanctioning a school will aid in the decline or prevention of “at-risk” youth from dropping out of school.

Before examining the specific data about dropouts and reading ability, it is important that one first understands who a dropout is and what factors influence their decision to leave school.

Typically, a student that is likely to dropout is defined as an “at-risk student”. “At-risk students are children or adolescents who are unlikely to become responsible, contributing members of society due to delinquency, substance abuse, teen pregnancy, school failure, or suicide.” (Davis & McCaul, 1990; Dryfoos, 1990) “They are children who are hurt, physically or psychologically, and children who have problems-- educational problems, personal problems, or social problems” (Frymier, 1992, p. v).

The *Dropout Prevention Handbook* further describes these youth as persons that “generally fall into one of the following categories: the student is a member of a one-parent family, the student comes from a family in which some members are chemically dependent, the student has no one in charge of her or him at home, the student belongs to a family that moves frequently, the student belongs to a family in which the person in authority considers school to be a low priority, the student or family member has been on

probation or has served a short jail sentence, or the student is not involved in community or school activities.” (Myll, 1988, p. 37)

The very nature of categorizing these youth using the term “at-risk”, defines them as children who are destined for failure. A successful student can be described as one who follows the following formulas: the more you read, the more you know; the more you know, the more you grow; and the smarter you are, the longer you stay in school. For an “at-risk student” the opposite would be true; the less you read, the less you know; the less you know, the sooner you drop out of school; the sooner you drop out of school, the sooner and longer you are poor; and the sooner you drop out, the greater your chances of going to jail.

If one knows who “at-risk students” are based upon the previously mentioned factors, then one might also consider who should determine whether or not a student is an “at-risk” candidate.

Initially, the teacher should be the first to observe when a child begins to exhibit any of the aforementioned- signs, categorizing them as an “at- risk” student. In addition, the student may begin to develop characteristics such as “change in attitude, falling grades, change in work or dress habits, and excessive tardiness or absences” (Myll, 1988, p. 18). When a child first appears to display these tendencies, the teacher should immediately take action to help the student by talking to him to try to understand whether the problems causing the behavior are school-related issues, or if they stem from the student’s home environment.

It is also important to note that changes in a student's behavior do not merely manifest during the onset of teenage years. Sometimes the child begins to exhibit these signs as early as elementary school, at which time the teacher should immediately begin to intervene on the child's behalf. According to the *National Center for Educational Statistics*, "NCES", "the number of family risk factors (household below poverty level, non-English primary home language, mother's highest education less than a high school diploma/GED, and single-parent household) is negatively associated with children's achievement gains in reading and mathematics. As the number of family risk factors increased, children experienced smaller gains from the start of kindergarten through the end of third grade in both subject areas. For example, children with no family risk factors had an average gain of 84 points in reading, compared with a 73-point gain among children with 2 or more family risk factors." (www.nces.ed.gov)

By identifying who dropouts or "at-risk students" are, the risk factors that are attributed to them, and who determines whether or not a child is an "at-risk student", one may be able to prevent these students from dropping out. Identification or trying to remedy the situation is not always successful, however, and some "at-risk students" succumb to their "destiny". In the following section, statistical data that is related to the dropout rate and reading ability will be discussed in addition to the effects this problem has on our society.

In October 2001, the *NCES* found the current "status drop out rate", or percentage of young people ages 16 through 24 who are out of school, or not enrolled and have not

earned a high school credential, irrespective of when they dropped out, accounted for 10.7 percent of the 35.2 million 16-24 year olds in the United States.

In addition to these significant dropout rates, test scores in the area of reading have remained relatively unchanged since the early 1990's. The *NCES* also reported the results of performance evaluations for fourth and eighth graders conducted by the *National Assessment of Educational Progress*. Results indicated, "The average reading scale score, which represents what students know and can do, of fourth graders in 2003 was not significantly different from that in 1992. The average score of eighth graders was higher in 2003 than in 1992 yet decreased 1 point from 254 in 2002 to 263 in 2003."

The *National Dropout Prevention Center/Network*, the "NDPC/N", also reported various reasons for dropping out of school as indicated in a 1990 first time follow-up longitudinal study by the *U.S. Department of Education, NCES*. "51.2% stated they did not like school, 31.3% stated they could not keep up with the school work, and 39.9% stated they were failing school." (www.dropoutprevention.org) These were the top three reasons why eighth to tenth graders dropped out of school. According to these statistics and those taken in 1999, many of these dropouts were considered illiterate costing taxpayers \$224 billion dollars per year with an additional loss of \$40 billion dollars annually to United States corporations.

Based on these statistics, one can easily conclude that illiteracy is closely related to the dropout rate in addition to a wide variety of other national issues. Poverty and illiteracy are considered leading indicators linked to increased rates of imprisonment, unemployment, lower income levels, and a higher rate of teen pregnancy, thus resulting

in public welfare assistance. According to an article found on the *Reading Rockets Website*, (www.readingrockets.org), “82% of prison inmates are school dropouts and are twice as likely to be ranked in the bottom levels of literacy as is the general population. In addition, 60% of all inmates are illiterate with 63% of inmates committing repeat offenses.” In this article, the author Jim Trelease asks, “Why are such students failing and dropping out of school?” He concludes by stating, “It is because they cannot read.” Based on findings by the *U.S. Census Bureau*, (www.census.gov), year 2002 statistics indicated 12.3% of students between the ages of 14-24 that were retained or “held-back” dropped out of school ultimately contributing to the rise in statistics relating to the previously mentioned “national issues”.

These staggering statistics about the dropout rate, reading scores, and effects dropouts and illiteracy has on our society suggest that one must consider a remedy for the situation before the problem intensifies.

The *Children’s Literacy Initiative* states that, “By helping teachers and parents focus on literacy during critical years of child development, students will be prepared to read earlier and better, thus reducing the need for remediation. With these skills, students will have a better chance of gaining employment and improving the quality of life in their neighborhoods.” (www.cliontheweb.org)

One additional solution to educating an “at-risk student” to read could be through the use of an intervention called music therapy. One might ask, “What exactly is music therapy?” According to the book *An Introduction to Music Therapy, Theory and Practice*, the authors state, “Music Therapy is an established allied health profession using music

and music activities to address physical, psychological, cognitive and social needs of individuals with disabilities.” (Davis, Gfeller & Thaut, 1999, p.7) Furthermore, the *American Music Therapy Association’s* Website, (www.musictherapy.org) states, “Music Therapy is an established healthcare profession that uses music to address physical, emotional, cognitive, and social needs of individuals of all ages. Music therapy improves the quality of life for persons who are well and meets the needs of children and adults with disabilities or illnesses. Music therapy interventions can be designed to promote wellness, manage stress, alleviate pain, express feelings, enhance memory, improve communication, and promote physical rehabilitation.”

Although “at-risk” youth are not considered children with disabilities, music can be an alternative aid to teaching children how to read. In response to a congressional request in 1997, the *National Reading Panel*, “NRP”, submitted a report to Congress in February 1999 on the topic “*Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction*”. In this article, the authors were able to determine many effective ways of teaching reading to students with respect to the areas of phonemic awareness, phonics instruction, fluency, guided oral reading, independent silent reading, comprehension, vocabulary instruction, and text comprehension instruction. The results of these findings are listed below with a correlation drawn between the traditional methods of teaching and music therapy approaches. These approaches will clearly support the notion that music therapy can be an additional alternative to teach reading.

Phonemic awareness is primarily the ability to recognize a letter and apply a sound to that letter ultimately making up a word. For example, the words “go” and “she” each consists of two sounds or phonemes. Results of analysis on a variety of learners of different ages and grade levels indicated that teaching children how to “sound out” words, or to have phonemic awareness significantly improved their reading ability. “*Phonics instruction* is a way of teaching reading that stresses the acquisition of letter-sound correspondences and their use in reading and spelling”. Results showed that teaching phonics produced significant benefits for students in kindergarten through sixth grade. Overall, students were able to decode and spell words faster than those that did not have phonics instruction.

As an alternative, both phonemic awareness and phonics instruction can be taught musically using vocal singing techniques thus achieving similar results. A music therapy activity might be as follows:

- Write random syllables and words on note cards and adhere them in random order to a chalkboard
- The music therapist then plays a familiar tune on the piano while students sound out what is on the note cards singing the phonemes to the tune being played
- To intensify the activity, mix up the note cards after ending the tune on the piano, or increase the speed of the tune repeating the activity

Although this exercise uses music, it still maintains the integrity of the concepts taught using conventional learning methods. In addition, using music can be more interactive, entertaining, and holds the attention of the student longer than traditional methods thus making the task of learning more enjoyable for the learner.

The report also stated that a *fluent* reader “is able to read orally with speed, accuracy, and with proper expression”. Two techniques are typically used to teach fluency, *guided oral reading* and *independent silent reading*. Results showed, “Guidance from teachers, peers, or parents had a significant and positive impact on word recognition, fluency, and comprehension across a range of grade levels”, and “encourages large amounts of independent reading and improvements in reading achievement”.

Using the previous music therapy example, one could alter the activity by putting words on the note cards instead of syllables. This would also accomplish the same goals that fluency, guided oral reading, and independent silent reading techniques try to achieve. Teaching students lyrics to a song in a group setting would also have the same positive impact because they would be “reading aloud” in a group setting improving word recognition, fluency, comprehension and social skills.

With respect to *reading comprehension, vocabulary instruction, and text comprehension instruction*, the NRP’s report shows that comprehension is a complex, active cognitive process that is enhanced when readers actively associate the text they are reading to their own personal experiences.

Using rhythmic patterns is yet another way musical mnemonics can be incorporated into teaching reading to a child. Webster’s defines *mnemonics* as “The principle to create in the mind an artificial structure that incorporates unfamiliar ideas or, especially, a series of dissociated ideas that by themselves are difficult to remember.” The *Journal of Music Therapy* further elaborates on this idea in an article by Kate Gfeller entitled “*Musical Mnemonics as an Aid to Retention With Normal and Learning Disabled*

Students”. In this study Gfeller asserts that short-term memory recall was enhanced by using paired associations of music with visual and verbal modalities. “Both music/visual or verbal/visual mediation, however, were significantly more effective in aiding recall than either music or verbal mediation alone.” Ultimately, this means that when subjects were asked to recall what they had learned, if they used music, verbal, or visual aids alone, their ability to remember was not as high as if these modalities were paired together with one another. In short, the study indicated that musical mnemonics was a useful aid to retention for both learning disabled and normal subjects, thus resulting in an improvement in memory recall.

The book entitled *Music and Students at Risk: Creative Solutions for a National Dilemma* also concludes that music is an effective intervention for teaching “at-risk students”.

“Music and the arts can provide effective intervention for many of the problems associated with students at risk.” (Hanson, 1990; Marshall, 1978) “Involvement in music activities offers experiences that are more compatible with the learning styles and emotional needs of “at-risk students”... Sights, sounds, and emotions explored through the arts may provide those students with a critical link between the sometimes alien-world of the classroom and the “ways of knowing” that are more familiar to them.” (Hanson, Silver, & Strong, 1991)

Interviews and on-site observations were also conducted at several schools and revealed, “Participation in fine arts courses gave students opportunities for positive interaction with peers and adults, opportunities to experience pride in accomplishment,

and a supportive and nurturing learning environment. Statements from administrators, teachers, and students confirmed that these art classes were the only reasons many of these students remained in school.” (Taylor, Barry, & Walls, 1997, p. 26)

These positive effects also suggest music therapy can be an effective intervention with respect to reading ability and dropout prevention and support the recommendation that educational authorities consider its use as an additional alternative for educating “at-risk” youth with reading difficulties in the classroom.

In conclusion, it is apparent that there is a definite link between dropout rate and reading ability. Statistics and surveys cited within this paper have repeatedly shown that a vast majority of “at-risk students”, also known as dropouts, are illiterate or show difficulty in the area of reading. Consequently, these students choose to drop out of school altogether. It has also been shown that music therapy is a positive additional alternative to learning reading in the classroom. Although additional evidence may need to be gathered to support these findings, it is this author’s recommendation that music therapy be used as an additional alternative when educating “at-risk students”.

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Bibliography

American Music Therapy Association. (2005). *What is music therapy?* Retrieved April 14, 2005, from <http://www.musictherapy.org/>

Children's Literacy Initiative. (2005). *Why literacy training is needed.* Retrieved April 16, 2005, from <http://www.cliontheweb.org/index-main.html>

Davis, W., Gfeller, K., & Thaut, M. (1999). *An introduction to music therapy, theory and practice.* Boston, MA: McGraw-Hill College.

Davis, W., & McCaul, E. (1990). *At-risk children and youth: A crisis in our schools and society.* Augusta, ME: State Department of Educational and Cultural Services.

Frymier, J. (1992). *Growing up is risky business, and schools are not to blame* (Final report: Phi Delta Kappa study of students at risk, vols. I & II). Bloomington, IN: Phi Delta Kappa.

Gfeller, K. (1983). Musical mnemonics as an aid to retention with normal and learning disabled students. *Journal of Music Therapy*, XX (4), 179-189.

Hanson, J.R. (1990, March). *Learning styles, types of intelligence and students at risk: Music education as a catalyst for needed change*. Paper presented at the Music Educators National Conference, Washington, DC.

Hanson, J.R., Silver, H.F., & Strong, R.W. (1991). Square pegs: Learning styles of at-risk students. *Music Educators Journal*, 78, (3), 30-35.

Marshall, A.T.H. (1978). An analysis of music curricula and its relationship to the self-image of urban black middle-school age children (Doctoral dissertation, The State University of New Jersey, 1977). *Dissertation abstracts International*, 38, 6594A.

Myll, N. (1988). *The dropout prevention handbook, a guide for administrators, counselors, and teachers*. West Nyack, NY: Parker Publishing Company.

National Center for Educational Statistics. (2005). *Statistical abstract of the United States*. Retrieved April 16, 2005, from <http://www.nces.ed.gov/>

National Dropout Prevention Center/Network. (2005). *Quick facts why students drop out*. Retrieved April 16, 2005, from <http://www.dropoutprevention.org/>

National Reading Panel. (2005). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading*. Retrieved April 15, 2005, from <http://www.nationalreadingpanel.org/>

Nueman, J. (2005, April 8) Rules loosened for no child left behind law. *The Los Angeles Times*, p. A28.

Taylor, J., Barry, N., & Walls, K. (1997). *Music and students at risk: Creative solutions for a national dilemma*. Reston, VA: Music Educators National Conference.

Trelease, J. (2005). *Is reading still important in the video age?* Retrieved April 16, 2005, from <http://www.readingrockets.org/>

U.S. Census Bureau. (2005). *Statistical abstract of the United States*. Retrieved April 16, 2005, from <http://www.census.gov/>