



## Illinois Wesleyan University Digital Commons @ IWU

---

John Wesley Powell Student Research  
Conference

1999, 10th Annual JWP Conference

---

Apr 17th, 9:00 AM - 10:00 AM

# Adults with Attention Deficit/Hyperactivity Disorder: An Examination of the Effects of Extra- Task Stimulation on Attention and Comprehension during Reading

Angela M. Reining

*Illinois Wesleyan University*

Johnna K. Shapiro, Faculty Advisor

*Illinois Wesleyan University*

Follow this and additional works at: <http://digitalcommons.iwu.edu/jwprc>

---

Angela M. Reining and Johnna K. Shapiro, Faculty Advisor, "Adults with Attention Deficit/Hyperactivity Disorder: An Examination of the Effects of Extra-Task Stimulation on Attention and Comprehension during Reading" (April 17, 1999). *John Wesley Powell Student Research Conference*. Paper 6.  
<http://digitalcommons.iwu.edu/jwprc/1999/posters/6>

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact [digitalcommons@iwu.edu](mailto:digitalcommons@iwu.edu).

©Copyright is owned by the author of this document.

Poster Presentation 29

**ADULTS WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER:  
AN EXAMINATION OF THE EFFECTS OF EXTRA-TASK STIMULATION  
ON ATTENTION AND COMPREHENSION DURING READING**

Angela M. Reining and Johnna K. Shapiro\*  
Department of Psychology, Illinois Wesleyan University

Although much research has been done on children with Attention Deficit Hyperactivity Disorder (ADHD), there is little literature on adults with the disorder. It was previously thought that ADHD went into remission with age, but recent findings suggest that as many as 80% of children diagnosed with ADHD continue to express symptoms as adults.

One of the biggest problems faced by those afflicted with ADHD is the comprehension of information. Competing distractions, including random thoughts, make it difficult to stay on task. In children, however, it has been found that musical stimulation has a positive effect on their ability to complete more arithmetic problems correctly (Abikoff et al., 1996). These results support the underarousal/optimal stimulation theory proposed by Zentall (1975, 1993). This theory states that a person with ADHD is under-aroused in the frontal lobe of their brain, which is the center for attention. Listening to music may stimulate this area and brings his/her attention level up to normal. I am proposing that musical stimulation may also help adults who suffer from attention disorders to concentrate.

The present study examined both students diagnosed with ADHD and undiagnosed students. All participants were given a battery of tests to assess general intelligence, frontal lobe functioning, and symptoms of inattention. The Brown Attention Deficit Disorder Scale was used to rate students on tendency toward attention deficits. Participants were placed in one of three groups based on their Brown score: low, medium, or high. Participants were given three passages to read and study with the knowledge that they would later be tested on their comprehension. Each passage was studied separately under one of three conditions; silence, speech, and music. Music was played from a favorite CD brought in by the participant. Both score on the comprehension questions and time taken to read the passage will be examined under each stimulatory condition and participant type.

Given the underarousal/optimal stimulation theory, it is hypothesized that a significant difference in scores of comprehension will result between the silent condition and musical preference condition of the participants with a high tendency toward or diagnosis of ADHD. It is expected that the reading comprehension scores will be significantly higher when learning is done with music of preference, since the participants are more aroused and better able to concentrate. A smaller, non-significant change in the scores of participants with a low tendency toward ADHD is also hypothesized. Analyzed data will be presented at the conference.