

# THE EFFECTS OF MUSIC EXPOSURE ON COGNITIVE ABILITIES.

By

SIDRAH NAYYER

**LIBRARY**  
INSTITUTE OF PROFESSIONAL PSYCHOLOGY  
BAHRIA UNIVERSITY KARACHI CAMPUS  
KARACHI

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Discipline: PSYCHOLOGY

Faculty/Department: INSTITUTE OF PROFESSIONAL PSYCHOLOGY.

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Signature (s):

*Sonia*  
Sept 2011

Principle Supervisor: SONIA MAIRAJ MALIK.

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*Zainab F. Zadeh*

Director of Department: DR. ZAINAB F. ZADEH

Date: \_\_\_\_\_

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*I certify that the research work presented in this thesis is to the best of my knowledge my own. All sources used and any help received in the preparation of this dissertation have been acknowledged. I hereby declare that I have not submitted this material, either in whole or in part, for any other degree at this or any other institution.*

Signature: *Richard Nayze*

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## DEDICATION

I would first and foremost like to dedicate this thesis to my wonderful parents, without their encouragement and support I would not have been able to complete this thesis.

I would especially like to dedicate this thesis to all of the heavy metal and classical music listeners that influenced me to work with you all. Your choice of music makes you unique. Music is a powerful tool that can inspire the world around you.

*"Music is a moral law. It gives soul to the universe, wings to the mind, flight to the imagination, and charm and gaiety to life and to everything."*

*-Plato*

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## ABSTRACT

The purpose of the present research was to determine the effects of music preferences on cognitive abilities. The purpose was to examine the significant difference between those who preferred heavy metal and those who preferred classical music. It was hypothesized that students who preferred classical music will have higher scores on working memory as compared to processing speed. It was further hypothesized that heavy metal music listeners will have higher scores on processing speed compared to those who prefer classical music. Students who prefer classical music will have higher scores on working memory as compared to those who prefer heavy metal. In order to measure cognitive abilities, Working Memory Index (WMI) and Processing Speed Index (PSI) from the Wechsler Adult Intelligence Scale- Third Edition (WAIS-III) were administered. In order to check the music preference of the participants the Short Test of Music Preference (STOMP) was administered. The sample comprised of 40 university students, equally divided amongst the genre preference and gender. For statistical analysis of the data, t-test was applied using Minitab software. Findings suggest there is no significant difference between the scores on WMI and PSI between classical and heavy metal listeners with significance level at  $p < 0.05$  level. However, significant results were expressed in the processing speed of heavy metal and working memory of classical listeners. Higher scores of processing speed were found for heavy metal listeners while listening to heavy metal in comparison to classical music listeners. Higher scores of working memory were found for classical music listeners while listening to classical music in comparison to heavy metal listeners.