

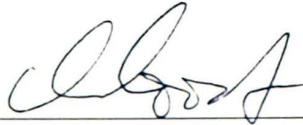
LEVEL OF SELF-ESTEEM IN SCHOOL AGE CHILDREN  
WITH AND WITHOUT DYSLEXIA

DISSERTATION

TAMMI M. LEMLEY

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I am submitting herewith a thesis written by Tammi M. Lemley entitled "Level of Self-Esteem in School Age Children With and Without Dyslexia." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Clinical Psychology.



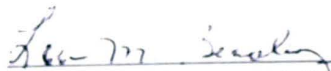
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LEVEL OF SELF-ESTEEM IN SCHOOL AGE CHILDREN  
WITH AND WITHOUT DYSLEXIA

A Thesis  
Presented for the  
Master of Arts  
Degree  
Austin Peay State University

Tammi M. Lemley  
December 2002



## DEDICATION

This thesis is dedicated to my parents, Edward E. and Jannett L. Lemley who have supported, loved, and believed in me even when I wanted to give up and did not believe I could do this. Thank you for pushing me to always do my best and making me strive to prove to myself that I can do anything that I set my mind to. Without your love, support, and encouragement I know that this would not have been possible. This thesis is also dedicated to my family and friends who have provided me with encouragement, stress relief, and a good laugh when I have needed it most.

## ACKNOWLEDGEMENTS

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## Abstract

This study examined self-esteem in fifth to twelfth grade students with and without dyslexia. Research has shown that students with learning disabilities have lower levels of self-esteem than students without learning disabilities. However, these studies have not differentiated between the many different types of learning disabilities, nor have they examined the different dimensions of self-esteem.

Forty-four students with and without dyslexia were given the Multidimensional Self-Concept Scale (MSCS). The MSCS has six subscales, which include; social, competence, affect, academic, family, physical, and a total self-esteem score. The scores of the students in the two groups were compared to determine if there were group differences in self-esteem. The hypothesis of this study was that students with dyslexia would score lower on the MSCS, which measures level of self-esteem, than would students without dyslexia. The study found a statistically significant difference in level of self-esteem between students with dyslexia and students without dyslexia in the area of academics but not on any of the other subscales.



## TABLE OF CONTENTS

| CHAPTER   | PAGE |
|---|------|
| I. INTRODUCTION.....  | 1    |
| Self-Esteem.....  | 3    |
| Learning Disabilities and Self-Esteem.....                  | 4    |
| Dyslexia and Self-Esteem.....                               | 6    |
| Summary.....  | 9    |
| Present Study.....  | 10   |
| II. METHODS.....  | 12   |
| Participants.....   | 12   |
| Materials.....  | 13   |
| Procedures.....   | 14   |
| III. RESULTS.....   | 16   |
| IV. DISCUSSION.....   | 22   |
| LIST OF REFERENCES.....                                     | 27   |
| APPENDICES.....   | 31   |
| A. Tennessee State Department of Education Definitions..... | 32   |
| B. Consent to Participate Form.....                         | 33   |
| C. Parent Questionnaire.....                                | 35   |
| D. Assent Form for Ninth to Twelfth Graders.....            | 36   |
| E. Assent Form for Fifth to Eighth Graders.....             | 38   |
| VITA.....   | 39   |

## CHAPTER 1

### INTRODUCTION

Over the last several decades many school-aged children have been diagnosed with learning disabilities. In the state of Tennessee a learning disability is defined as a 16-point difference in achievement scores and cognitive ability scores in any one of the seven following areas: mathematical calculation, mathematical reasoning, written expression, reading comprehension, basic reading skill, oral expression, or listening comprehension (Tennessee State Department of Education, Division of Special Education, 1993).

One of the more prominent diagnoses that are given to students with reading disabilities is that of dyslexia. Padget, Knight, and Sawyer (1996) defined dyslexia as:

a language-based learning disorder that is biological in origin and primarily interferes with the acquisition of print literacy (reading, writing, and spelling).

Dyslexia is characterized by poor decoding and spelling abilities as well as deficits in phonological awareness and/or phonological manipulation. These primary characteristics may co-occur with spoken language difficulties and deficits in short-term memory.

Secondary characteristics may include poor reading comprehension (due to the decoding and memory difficulties) and poor ~~written~~ expression, as well as

difficulty organizing information for study and retrieval. (p. 55)

According to Padget, Knight, and Sawyer (1996), dyslexia is characterized as a serious problem in reading and spelling individual words. It is estimated that between 3 and 6% of children are not reading at their appropriate level (Lovett, 1999). Children with dyslexia may also have problems with more basic sensory or perceptual processing which leads them to being unable to completely understand written or spoken language (Leong, 1972; Lovett 1999).

As mentioned above, children in the state of Tennessee are diagnosed with dyslexia when there is a 16-point difference between achievement and cognitive ability (see Appendix A for definitions). It is worth noting, however, that The Tennessee State Department of Education, Division of Special Education (2001) is currently revising the discrepancy to a 22-point (an increase from 16) difference between achievement and cognitive ability. Despite the difficulties involved with this learning disability, children with dyslexia are at average or above average levels of intelligence, by definition (Lovett, 1999; Michelsson, Byring, & Bjoerkgren, 1985; Thomson & Hartley, 1980). Although these children are at (or above) average intelligence, research indicates that children with learning disabilities have lower self-esteem levels than students without learning disabilities (Cosden & McNamara, 1997; Heath & Ross, 2000; Valas, 1999). Although there have been many studies on the effects of a learning disability on self-esteem, there have been few studies done on the effects of *specific types* of learning disabilities on self-esteem.



## Self-Esteem

The difficulty of defining the popular concept of self-esteem was acknowledged in a review article on self-esteem by Street and Isaacs (1998). However, the majority of theorists today believe that the definition of self-esteem is “a subset of self-concept” (Street & Isaacs, p. 47). Therefore we must define self-concept in order to define self-esteem. A person’s self-concept is based upon the idea who the person is and of who they are. Self-esteem represents how much you like who you are, “the value that one places on one’s self – the sense of worthiness one feels and acts upon in reference to one’s self-concept” (Street & Isaacs, 1998, p. 47). However, the terms self-concept and self-esteem are often used interchangeably in literature and research although they have different definitions.

According to Street and Isaacs (1998), a student’s self-esteem has a significant impact on learning in the school setting, and empirical studies show a high correlation between a student’s scholastic success and self-esteem. Haney and Durlak (1998) found that students with higher level of self-esteem and a more positive self-concept have a higher level of academic success.

Leary (1999) states that a person’s level of self-esteem is based on several assumptions. For example, a high level of self-esteem is more desirable than a low level of self-esteem. And raising the self-esteem level improves a person’s emotional well being and produces beneficial changes in that person’s behavior.

Brockner and Hulton (1978) note that people with low levels of self-esteem often have undesirable emotional and behavioral problems. McGee,

Williams, and Nada-Raja (2001) found that children with low levels of self-esteem have feelings of hopelessness, thoughts of doing harm to themselves, and suicidal ideation. Gardner and Pierce (1998) state that people with low levels of self-esteem “predict greater failure, give up quicker, fail to cope well under conditions of adversity, and engage in fewer efforts to acquire the skills necessary for successful task performance” (p. 56). In a study done by Harrison and Luxenberg (1995), it was found that students with low levels of self-esteem were more likely to have problems with substance abuse, experience family problems, and have higher levels of emotional difficulties. With the knowledge of how having a high level of self-esteem can have positive affects on a person’s life, and how having a low level of self-esteem can have negative affects, it is important to fully investigate the relationship between all learning disabilities and self-esteem.

### Learning Disability and Self-Esteem

Researchers in previously conducted studies of the relationship between a student’s learning disability and their self-esteem failed to describe the specific areas in which a 16 point difference existed between achievement and cognitive ability scores. Therefore, the specific area of the student’s learning disability was unknown. The participants in these studies could have been diagnosed with a learning disability in any of the seven areas (mathematical calculation, mathematical reasoning, written expression, reading comprehension, basic reading skill, oral expression, or listening comprehension). Previous research has shown that those students that are diagnosed with a learning disability have lower levels of self-esteem than those that have not been diagnosed with a learning

disability (Haney & Durlak, 1998; Heath & Ross, 2000; Johnson, 1997; Stanley, Dai, & Nolan, 1997; Valas, 1999).

In a study done by Valas (1999), it was found that students with learning disabilities have lower levels of self-esteem, feelings of not being accepted by their peers, and more feelings of loneliness than students without learning disabilities. Even when controlling for age, gender, achievement, and intelligence, students with learning disabilities reported they were less accepted by their peers (Valas, 1999). Valas hypothesized that in children with learning disabilities, especially primary school age children, that the learning disability has a negative effect on peer acceptance and feelings of loneliness.

Stanley et al. (1997) reported that students with learning disabilities suffer from lower levels of self-esteem than those who have been diagnosed with behavior disorders. They also noted that those students with learning disabilities or behavior disorders suffered from higher levels of depression than students without learning disabilities and students without behavior disorders.

In a study done by Heath and Ross (2000), it was found that students in kindergarten through eighth grade who have learning disabilities have a larger likelihood of suffering from depression. Heath and Ross did not identify the types of learning disabilities that the students had been diagnosed with. Heath and Ross also found that girls with learning disabilities report having a larger sense of social problems with their peers than those girls do not have learning disabilities.

In 1997, Clark examined the effect of the teachers' attitude on students with learning disabilities. Clark (1997) found that in dealing with students with



learning disabilities, teachers are more likely to punish less, pity more, and expect failure from the student. Clark (1997) hypothesized that a teacher can have positive effects on a student's level of self-esteem. However, with the negative messages that children may receive from their teacher, they interpret the responses as cues that they are unable to do the work, and then believe that they are incompetent, and are not motivated to achieve (Clark, 1997). Similarly, Bear and Minke (1996) found that in children with learning disabilities it is the perceived feedback from the teacher that helps in preserving positive feelings of self-worth.

In a study conducted by Cosden and McNamara (1997), it was found that college students who had been diagnosed with a learning disability had lower test grades, lower grades in class, and lower perceptions of their academic and intellectual abilities than their peers who were students without learning disabilities. However, Cosden and McNamara (1997) did not find a difference in students with learning disabilities and students without learning disabilities sense of global self-worth, or self-esteem.

In summary, the majority of the previous research in the area of self-esteem and learning disabilities concur that those students with learning disabilities have lower levels of self-esteem (Haney & Durak, 1998; Heath & Ross, 2000; Stanley et al. 1997; Valas, 1999).

### Dyslexia and Self-Esteem

Although ~~there~~ have been many studies done on the relationship between learning disabilities and self-esteem, there has been relatively little research done

on the relationship between dyslexia, a subtype of a learning disability, and self-esteem. In this section I shall completely review the literature in this area.

Rosenthal (1973) reports that even before children are diagnosed with dyslexia they are subjected to negative remarks about their inability to read and write on the same level as their classmates. This study included three groups of boys between the ages of 8 and 14, with a total sample size of 60. The first group was divided into two sub-groups, the first sub-group consisted of 10 boys who knew that they had the dyslexic diagnosis, and 10 boys who did not know that they had the dyslexic diagnosis. The second group was the control group and consisted of 20 boys who were matched as closely as possible to the 20 boys in the first group for age, ethnicity, and socioeconomic status. The third group studied consisted of 20 asthmatic boys who served as a control group. The asthmatic controls were added because their illness is an illness that most people know about and understand.

Rosenthal (1973) tested all three groups by using the Coopersmith Self-Esteem Inventory (SEI; Coopersmith, 1967). Due to the difficulties that students with dyslexia have with reading, the test was taped and played for all three groups, and the participants responded by marking the appropriate box (Rosenthal, 1973). The Coopersmith Behavior Rating Form (BRF; Coopersmith, 1967) was sent to all of the teachers of all 60 participants to evaluate the correlation between subjective statements and the behaviors of the participants in the classroom. Correlational analysis of the results was conducted. A post hoc comparison was also conducted. The post hoc comparison showed that the means

of the SEI of both the normal controls and the asthmatic controls greatly exceeded those of the 2 sub-groups of students with dyslexia. The results of the study confirmed that children with dyslexia have lower levels of self-esteem than do the non-asthmatic control group and the asthmatic control group, and that those children that have some knowledge of dyslexia have higher levels of self-esteem than those that have no knowledge (Rosenthal, 1973).

In a study that was conducted by Thomson and Hartley in 1980, it was hypothesized that boys with dyslexia would have lower levels of self-esteem than students without dyslexia. The sample of the study consisted of 30 boys who were between the ages of 8 and 10. The 30 boys were placed into two groups, dyslexic and control. The two groups were matched for age, gender, intelligence level, and socioeconomic status. Those boys who were in the dyslexic group were at least two years behind in reading and spelling, and those in the control group were reading at, or above, the appropriate level. The test administrators used a modified version of The Kelly Grid (Kelly, 1955), which consists of 8 pictures; headmaster, teacher, mother, father, sibling, friend, "as I am", and "as I would like to be" (Thomson & Hartley, 1980, p. 22-23). The participant was asked to place the picture in one of six categories, good at reading, kind, hardworking, intelligent, happy, and successful.

The second test that was administered was semantic differential, and was used to determine how the children felt others saw them. By using the pictures from The Kelly Grid, the test administrator gave the participant a set of two descriptive, opposite adjectives to place with the picture. Each picture went



through the set of six adjectives. The third test was the SEI. As in the first study done by Rosenthal in 1973, the items were taped and played for the participant. The study found that the children with dyslexia believed that being able to read can make you happy. The children with dyslexia scored significantly lower in self-esteem in comparison to students without dyslexia (Thomson & Hartley, 1980).

The final study was conducted by Riddick, Sterling, Farmer, and Morgan in 1999, where it was hypothesized that the college students with dyslexia would have lower levels of self-esteem, have higher levels of anxiety, and negative attitudes about their prior educational experiences, than their non-dyslexic counterparts. The sample of the study consisted of 32 students who were placed into two groups, dyslexic and control. The two groups were matched in the areas of age, gender, academic discipline, and social background. Both groups were then administered the Culture-free Self-Esteem Inventory (Battle, 1992), the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1983), and a five point scale questionnaire that was devised by the research team about previous and current educational histories. The study found that those students with dyslexia had lower levels of self-esteem, were more anxious and had feelings of incompetence in their written work and in their scholastic achievements.

### Summary

The study conducted by Rosenthal (1973) found that children with dyslexia have lower levels of self-esteem and that students who knew that they had been diagnosed with dyslexia had a lower level of self-esteem than those

participants who did not know about the dyslexia diagnosis. The study conducted by Thomson and Hartley (1980) found that students with dyslexia had lower levels of self-esteem in the areas of school/academic and home/parents. In the final study, which was conducted by Riddeck et al. (1999), it was found that students with dyslexia had lower levels of self-esteem than students without dyslexia.

A literature search failed to uncover any other studies that investigate the relationship between dyslexia and self-esteem. In summary, the little research that has been done concludes that there is a lower level of self-esteem in students with dyslexia than their counterparts who do not have dyslexia (Riddick, Sterling, Farmer, & Morgan, 1999; Rosenthal, 1973; Thomson & Hartley, 1980).

### The Present Study

Each of the previous studies contains at least one limitation to its generalizability. The study conducted by Rosenthal (1973) only looked at Caucasian males between the ages of 8 to 14 years of age. Therefore, Rosenthal's findings might not be generalizable to female students, students of different ethnic backgrounds, and students that are over the age of 14 years old. The study done by Thomson and Hartley (1980) may also lack generalizability since it was also only conducted on male participants between the ages of 8 to 10 years old. The study done by Riddick et al. (1999) was conducted on both male and female students, however the findings may not be generalizable to students that are in grades 5-12.

In all of these studies the different dimensions of self-esteem were not examined. This study examined the levels of self-esteem in fifth to twelfth grade students with and without dyslexia. This study examined both male and female students of different ethnic backgrounds. The participants were students from the Robertson County, Tennessee, school system.

## CHAPTER II

### METHODS

#### Participants

There were 44 participants with dyslexia and 44 participants without dyslexia that participated in the study, with a total of 88 participants. Either a school psychologist or a medical doctor formally diagnosed those participants with dyslexia. Each participant scored average or above average on intelligence tests that were given during the time of their diagnosis. The participants had at least a 16-point difference between achievement scores and cognitive abilities in any of the following areas of broad reading, basic reading, or reading comprehension.

Students with dyslexia who had a dual diagnosis (for example, a student with dyslexia and ADHD) were excluded from the study. If a student had more than one diagnosis, the factors that involve the other diagnosis may impact their level of self-esteem, and this study was not designed to be able to discriminate between factors. Students who did not have dyslexia, but had a diagnosis of another learning disability were also excluded from the study. Previous research studies (Haney & Durlak, 1998; Heath & Ross, 2000; Johnson, 1997; Stanley, Dai, & Nolan, 1997; Valas, 1999) have shown that students with other learning disabilities have lower levels of self-esteem than students that have not been diagnosed with a learning disability. This exclusion helped to ensure that students that are in the experimental groups would not add confounding factors.



## Materials

The Multidimensional Self-Concept Scale (MSCS; Bracken, 1992) was given to each child who was a qualified participant. The MSCS is a 150-item, self-report instrument that can be given individually or in groups. The MSCS was designed to measure self-concept on six dimensions (Archambault, 1992), or environmental contexts, which include social, competence, affect, academic, family, and physical dimension. Although the MSCS is states that it is measuring self-concept, it is actually measuring self-esteem based upon its' own definition of self-concept. The MSCS consists of 150-items, 25 items per dimension that are ranked on a 4-point Likert-type scale. The MSCS is written at a third grade reading level, and the examiner is able to explain the definition of a word if the participant does not understand the word (Willis, 1992). According to Arachambault the reliability of the MSCS was determined by using a normative sample. The internal consistency (coefficient alpha) for the overall scale was .98, and the alphas for the six subscales ranged from .87 to .97. The test-retest reliability was .90 for the overall scale and .73 to .81 for the subscales. The validity of the MSCS was determined by comparing it to the Coopersmith Self-Esteem Total Scale and the Piers-Harris subscales. The correlation between the MSCS and the Coopersmith Self-Esteem Total Scale had correlations ranging from .57 to .73, and the correlations between the MSCS and the Piers-Harris subscales ranged from .66 to .77.

## Procedures

Once permission was given by the Institutional Review Board (IRB) at Austin Peay State University (APSU) and the Robertson County School Board, an equal number of parents of children with dyslexia and children without dyslexia in the Robertson County School System were sent Informed Consent Forms (see Appendix B). Both sets of parents were sent consent forms by Robertson County school officials, as forms are sent from their offices. Along with being sent Informed Consent Forms, parents received a questionnaire requesting the following information: age of child, grade of child, ethnic background, and permission to gain access to the child's school records (see Appendix C). The participants came from students that were enrolled in the 5<sup>th</sup> to 12<sup>th</sup> grade. Once the forms were returned, the students with dyslexia were matched on the basis of age and grade level with students without dyslexia. Once the parents returned the consent forms, all students were asked if they assent to the study, and asked to sign assent forms, which were read to them by the study researcher (see Appendix D & E).

The participants were given The Multidimensional Self-Concept Scale (MSCS) at the school they attend. Depending upon the number of participants from each specific school, the MSCS were given to some participants on the same day, and others on consecutive days, depending on how many participants were at each school.

With the reading difficulties of students with dyslexia, the test was administered individually to all students. The researcher read the questions and let

the participants mark the appropriate box. At the time of test administration the researcher was blind to the status whether the student is one with dyslexia or a student in the control group.

## CHAPTER III

### RESULTS

School counselors and teachers sent consent forms home with all students in Robertson County, Tennessee, that were identified as having dyslexia, as defined for the purpose of this study by the state of Tennessee. When consent forms were returned from students with dyslexia, school counselors and teachers sent consent forms home with the students that were not identified as having dyslexia, and did not have any other type of diagnosis.

There were a total of 88 participants that returned their consent forms and signed the assent forms. Of the 88 participants, 44 were students with dyslexia that were matched in regard to age, grade, gender, and ethnicity, with 44 students without dyslexia.

Table 1

#### *Breakdown of Participants by Grade*

|                              | 5th | 6th | 7 <sup>th</sup> | 8 <sup>th</sup> | 9 <sup>th</sup> | 10 <sup>th</sup> | 11 <sup>th</sup> | 12 <sup>th</sup> | Total<br># |
|------------------------------|-----|-----|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------|
| Caucasian<br>Males           | 6   | 0   | 8               | 4               | 14              | 4                | 16               | 4                | 56         |
| Caucasian<br>Females         | 4   | 0   | 4               | 4               | 0               | 8                | 0                | 2                | 22         |
| African<br>American<br>Males | 0   | 0   | 4               | 4               | 0               | 2                | 0                | 0                | 10         |
| Total # of<br>Participants   | 10  | 0   | 16              | 12              | 14              | 14               | 16               | 6                | 88         |



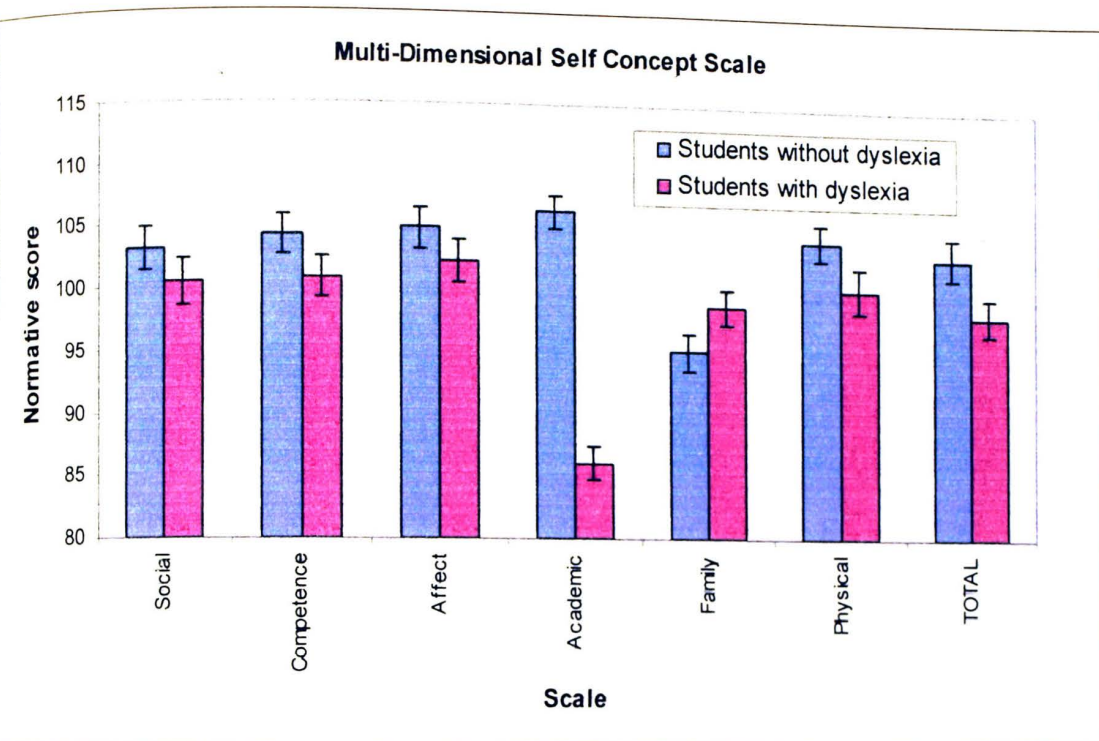
As Table 1 above shows, the majority of participants that returned the consent forms and signed the assent forms were Caucasian males. The number of African American males that returned the consent forms was lower than expected, and no African American females returned the consent forms. It was reported by school officials to the experimenter that the low number of returned consent forms from African American males was due to the large proportion of African American males that had a dual diagnosis and/or deficit. For the purpose of this study, anyone with a dual diagnosis and/or deficit was not considered to be an eligible participant. For this same reason, there were no African American females eligible to participate in the study. Due to the African American sample being limited, this study was unable to look for race differences, therefore analyses were only performed to investigate differences between students with and without dyslexia and differences between male and female students.

In this study, following the scoring instructions in the MSCS administration manual, a total self-esteem score and the six subscale scores were obtained. The scores were interpreted normatively, a score obtained by using the standard scores that compares the individuals' scores with the standardized scores. The scores for the six dimensions were interpreted independently and in combination with other MSCS scales.

The means and standard errors of measurements were calculated across participants for the normative scores across the subscales. The means and standard errors of measure for the normative scores are shown in Figure 1 for both students with and without dyslexia. As shown in Figure 1, the means were

comparable for students with and without dyslexia with the exception of the means for the subscale “Academic”.

*Differences between students with and without dyslexia*



One of the specific hypotheses of this study was that students with dyslexia would have lower scores on the MSCS than students without dyslexia. The Multivariate Analysis of Variance (MANOVA) was used to determine if differences exist between students with dyslexia and students without dyslexia, male and female students, and the subscales of the MSCS. A MANOVA performed on the data indicated that there was a statistically significant difference in normative scores on the MSCS between participants with and without dyslexia  $Wilks' \text{ Lambda} = .303, F(6, 81) = 31.029, p < .05$ .

In order to determine in which of the subscales were significantly different six pair-wise comparisons were performed (two-sample *t*-tests). The Bonferroni correction was used to control for the experiment wise error rate. These *t*-statistics are shown in Table 2 below.

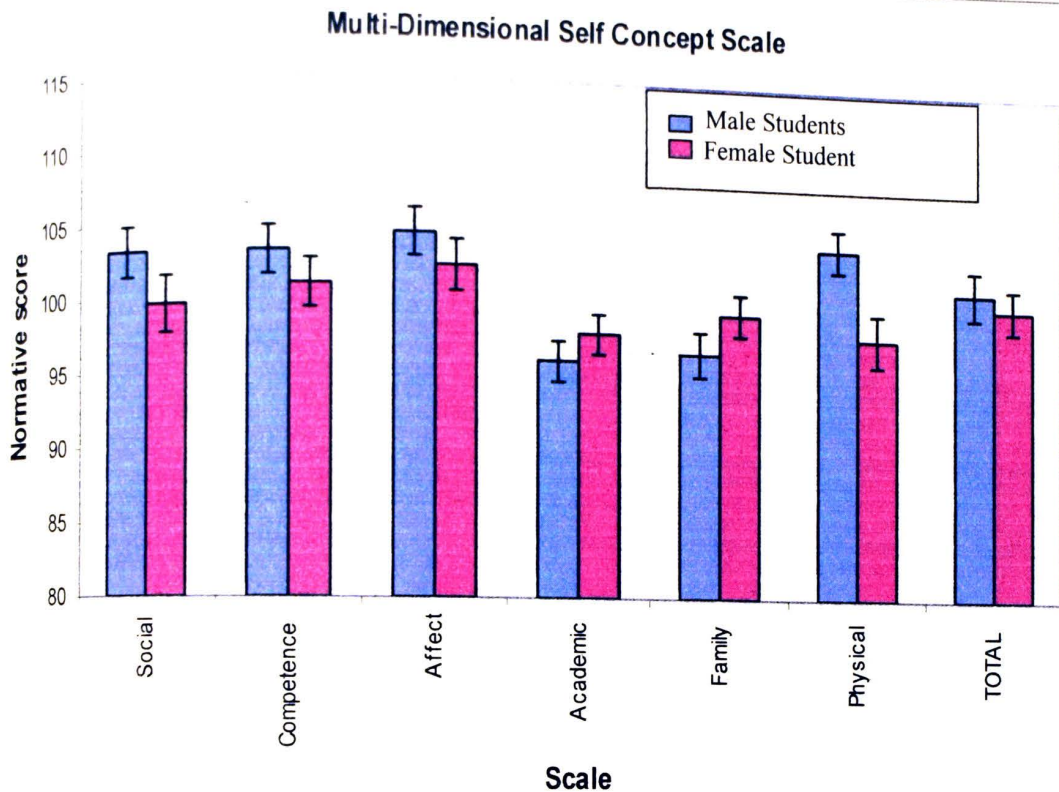
Table 2

| T-tests for MSCS subscales |             |                       |
|----------------------------|-------------|-----------------------|
| <u>Subscales</u>           | <u>df</u>   | <u><i>t</i>-score</u> |
| Social                     | 84.6        | 1.040                 |
| Competence                 | 86.0        | 1.463                 |
| Affect                     | 85.6        | 1.120                 |
| Academic*                  | 86.0        | 10.521                |
| Family                     | 85.7        | 1.821                 |
| <u>Physical</u>            | <u>82.1</u> | <u>1.684</u>          |

Note. \*  $p < .05$

The only area in which there was a statistically significant difference was in the area “academic”.

The differences between male students and female students were also examined. The means and standard errors of measurement were again calculated across participants for normative scores across the subscales. The normative scores are shown in Figure 2 for both male and female students. As seen in Figure 2 means were comparable for male and female students except on the subscale “Physical”.



A MANOVA analysis indicated that there was a statistically significant difference in normative total scores on the MSCS between male and female participants Wilks' Lambda = .739,  $F(6, 71) = 4.186$ ,  $p < .05$ .

Six two sample tests were performed to examine the pairwise comparisons. During the investigation of which subscale scores were statistically significant a Bonferroni correction was used for the experiment wise error rate, see Table 3.



Table 3

| T-tests for MSCS subscales |      |                 |
|----------------------------|------|-----------------|
| Subscales                  | df   | <i>t</i> -score |
| Social                     | 76.0 | 1.119           |
| Competence                 | 76.0 | 0.769           |
| Affect                     | 76.0 | 0.754           |
| Academic                   | 76.0 | 0.535           |
| Family                     | 76.0 | 1.069           |
| Physical                   | 76.0 | 2.217           |

Although the MANOVA performed on the normative total scores on the MSCS found a statistically significant difference between male and female students on the MSCS when the Bonferroni correction was used, a statistically significant difference was not found.

## CHAPTER IV

### DISCUSSION

The purpose of this study was to examine the levels of self-esteem in fifth to twelfth grade students with and without dyslexia. The specific hypothesis of this study was that students with dyslexia would have lower scores on the MSCS than students without dyslexia.

Based on prior research in the area of learning disabilities and of self-esteem, it was expected that there would be significant differences between the groups under study. The study conducted by Rosenthal (1973) found that children with dyslexia have lower overall levels of self-esteem. Rosenthal, however, did not look at subscales. Rosenthal (1973) also found that families and students who knew about the dyslexia diagnosis had a higher level of self-esteem than those participants who did not know about the dyslexia diagnosis. This study found that students with dyslexia have lower levels of self-esteem only in the area of academic self-esteem, not overall self-esteem level. The study conducted by Thomson and Hartley (1980) found that students with dyslexia had lower levels of self-esteem in the areas of school/academic and home/parents. In contrast to Thomson and Hartley's findings, the current study found that students with dyslexia have a normal level of self-esteem in the family subscale of self-esteem.

Additionally, Riddeck et al. (1999), it was found that students with dyslexia had lower levels of self-esteem than students without dyslexia. The current study found that students with dyslexia have the same level of self-esteem as those students without dyslexia except in the area of academics. In summary,

the previous research that has been done concludes that there is a lower level of self-esteem in students with dyslexia than their counterparts who do not have dyslexia (Rosenthal, 1973; Thomson & Hartley, 1980). After doing an Expanded Academic, ERIC, and PsychLit Search, these were the only studies that were found. Students without dyslexia were expected to score significantly higher than those students with dyslexia in all subscales of the MSCS.

In this study the study sample was largely limited to Caucasian males and females. The study did not obtain many African American male participants and no African American female participants due to dual diagnoses and/or deficit, and for the purpose of this study anyone with a dual diagnosis and/or deficit was ineligible to participate.

In the present study the fact that the only area in which there is a statistically significant difference in level of self-esteem was in the dimension of “academics” between students with and without dyslexia was an unexpected outcome. This finding suggests that students with dyslexia do not have an overall lower level of self-esteem as previously believed (Riddick, Sterling, Farmer, & Morgan, 1999; Rosenthal, 1973; Thomson & Hartley, 1980). It seems that students with dyslexia have a well-rounded view of themselves, except in the area of their academic abilities. Therefore, may be more accurate that when students with dyslexia are commended on their academics their level of academic self-esteem will rise.

Due to the small sample of African American participants any differences between African American students and Caucasian students were not investigated.

Gender differences however were investigated and a difference between male students and female students. The subscale most different for the two groups was “physical”, but when the conservative Bonferroni correction was used, this difference was not found to be statistically significant.

This study found that the only area in which there is a statistically significant difference in level of self-esteem, as measured with the MSCS, between students with and without dyslexia was in the area of academics. It is a interesting and important finding that there is only one area of self-esteem affected by having dyslexia, when it would be thought that students with dyslexia would have lower overall levels of self-esteem. This finding indicates that students with dyslexia do not allow the disability to have an affect on other areas of their lives. Therefore, students with dyslexia perceive that they are less capable in the area of academics, however in all other areas students with dyslexia perceive that they are as capable as students without dyslexia are.

As previously mentioned in the literature and research, the terms self-concept and self-esteem are often used interchangeably although they have different definitions. In this study the MSCS was used to determine levels of self-esteem in students with and without dyslexia. Although the MSCS is called the Multidimensional Self-Concept Scale, according to its own historical perspective in the examiner’s manual “William James’ often cited formula: Self Esteem = Success/Pretensions; that is, a person’s self esteem is a function of his or her presumed abilities and actual accomplishments” (Bracken, 1992). It is this



definition that the MSCS uses to define self-concept, therefore, it is actually measuring self-esteem due to what is being defined as self-concept.

As a point of comparison, students who stutter have a lower level of self-esteem in the areas of social, competence, affect, and physical self-esteem (Linn & Caruso, 1988). And, studies that compared the levels of self-esteem in adolescents with attention deficit hyperactivity disorder (ADHD) and children with diabetes found that these two groups have a significantly lower level of self-esteem than adolescents and children that do not have ADHD and diabetes, respectively (Slomkowski, Klein, & Mannuzza, 1995; Cavusoglu, 2001). This difference in findings of studies between impairments/disabilities that are not physically visible, like dyslexia, is also indicative that students with dyslexia have a better-rounded view of themselves than students with other similar non-visible impairments/disabilities.

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## APPENDICES

The Tennessee State Department of Education (1993) defines basic reading as:

the ability to recognize and analyze the words that comprise reading passages. Reading skills are usually divided into word-recognition skills and word-attack skills. Word recognition skills can be defined as words phonetically identified in isolation, as sight vocabulary or those words that are readily known. Word-attack skills are those word-analysis skills used to derive the meaning and/or pronunciation of a word through phonics, structural analysis, or contextual clues.

The Tennessee State Department of Education (1993) defines reading comprehension as:

a hierarchic sequence of skills with different levels of comprehension ranging from literal to interpretive to critical. Literal comprehension is the ability to outline or paraphrase; interpretive comprehension is the ability to draw conclusions or find the main idea; while critical comprehension involves making judgments about the reading selection.

The Tennessee State Department of Education (1993) defines written expression as:

the skills and abilities in all areas of language arts, and is considered the most complex form of human communication. The measure of spelling or visual motor integration in isolation, does not constitute a complete evaluation of written expression. They may, however, be combined with other test results as one component of the measure of written expression. The following five basic abilities should be considered when assessing written expression. The ability to:

- a. Form letters, words, numerals, and sentences in a legible manner.
- b. Generate enough meaningful sentences to express one's thoughts, feelings, and opinions adequately.
- c. Written in compliance with accepted standards of style, especially those governing punctuation, capitalization, and spelling.
- d. Uses acceptable English syntactic, morphological, and semantic events.
- e. Express ideas, opinions, and thoughts in creative and mature ways as appropriate for the developmental age and measured intellectual classification.



**Consent to Participate in a Research Study  
Austin Peay State University**

You are being asked to give permission for your child to participate in a research study. This form is intended to provide you with information about this study. You may ask the researcher (listed below), the researcher's faculty supervisor (listed below) about this study or you may call the Office of Grants and Sponsored Research, Box 4517, Austin Peay State University, Clarksville, TN 37044, (931) 221-7881 with questions about the rights of research participants.

1. **TITLE OF RESEARCH STUDY:** Level of self-esteem in school age children with and without dyslexia
2. **PRINCIPAL INVESTIGATOR:** Tammi Lemley, Graduate Student
3. **THE PURPOSE OF THE RESEARCH:** To determine the relationship between dyslexia and level of self-esteem in students.
4. **PROCEDURES FOR THIS RESEARCH:** Your child will be asked to take The Multidimensional Self-Concept Scale (MSCS), which assesses your child's level of self-esteem. Your child will be asked questions about how they feel about themselves, school, their relationships with family members, and their peers. This task will take approximately 45 minutes.
5. **POTENTIAL RISKS AND BENEFITS TO YOUR CHILD:** The benefit of this research is that it will help us gain a better understanding of the relationship between dyslexia and self-esteem in students. There are no known risks involved in participating in this study.

**INFORMED CONSENT STATEMENT:**

**Please read the statements below. They describe your rights and responsibilities as a parent of a participant in the study.**

I have read the above and understand what the study is about, why it is being done, and any benefits or risks involved.

I understand that I do not have to allow my child to participate in this study, and my refusal to allow my child to participate will involve no penalty or loss of rights.

I agree to allow my child to participate in this study and understand that by agreeing to allow my child to participate I have not given up any of my child's human rights.

I understand that I have the right to withdraw my consent and not allow my child to participate at any time during the study and all data collected from my child will be destroyed.

If I choose to withdraw my child from the study, that choice will be respected and my child nor I will not be penalized or coerced to continue.

I understand that I will receive a copy of this form.

Tammi Lemley  
Graduate Student  
Department of Psychology  
Austin Peay State University  
Clarksville, TN 37044  
(615) 219-2506

Dr. Charles B. Woods  
Associate Professor of Psychology  
Department of Psychology  
Austin Peay State University  
Clarksville, TN 37044  
(931) 221-7230

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Signature of Child's Parent/Guardian

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Date

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Signature of Researcher

## Appendix C

**Please read the questions/statements below and answer appropriately.**

1. The age of my child is \_\_\_\_\_ years.
2. The grade that my child is currently enrolled in is \_\_\_\_\_.
3. The ethnicity of my child would be best described as \_\_\_\_\_.
4. I give my permission for the investigator to gain access to my child's school records in order to see test scores.  
\_\_\_\_\_ yes \_\_\_\_\_ no.
5. Has your child ever been diagnosed with a learning disability?  
\_\_\_\_\_ yes \_\_\_\_\_ no.
6. If the answer to question 5 is yes, please name/describe the learning disability?

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\_\_\_\_\_  
Signature of Child's Parent/Guardian

\_\_\_\_\_  
Date

**Assent to Participate in a Research Study  
For Students in Ninth to Twelfth Grades  
Austin Peay State University**

You are being asked to give assent to participate in a research study. This form is intended to provide you with information about this study. You may ask the researcher (listed below), the researcher's faculty supervisor (listed below) about this study or you may call the Office of Grants and Sponsored Research, Box 4517, Austin Peay State University, Clarksville, TN 37044, (931) 221-7881 with questions about the rights of research participants.

1. **TITLE OF RESEARCH STUDY:** Level of self-esteem in school age children with and without dyslexia
2. **PRINCIPAL INVESTIGATOR:** Tammi Lemley
3. **THE PURPOSE OF THE RESEARCH:** To determine the relationship between dyslexia and level of self-esteem in students.
4. **PROCEDURES FOR THIS RESEARCH:** You will be asked to take The Multidimensional Self-Concept Scale (MSCS), which will assess your level of self-esteem. The questions on the MSCS asks how you feel about yourself, school, your relationship with your parents, and your relationships with your peers. This task will take approximately 45 minutes.
5. **POTENTIAL RISKS AND BENEFITS TO YOU:** The benefit of this research is that it will help us gain a better understanding of the relationship between dyslexia and self-esteem in students. There are no known risks involved in participating in this study.

**INFORMED ASSENT STATEMENT:**

**Please read the statements below. They describe your rights and responsibilities as a participant in the study.**

I have read the above and understand what the study is about, why it is being done, and any benefits or risks involved.

I understand that I do not have to participate in this study, and my refusal to participate will involve no penalty or loss of rights.

I agree to participate in this study and understand that by agreeing to participate I have not given up any of my human rights.



I understand that I do not have to answer any question that I do not want to answer, and that I can stop at anytime.

I understand that if I need to take a break during the testing, that I can take a break.

I understand that I have the right to withdraw my assent and not participate in the study at any time during the study and all data collected from me will be destroyed.

If I choose to withdraw from the study, that choice will be respected and I will not be penalized or coerced to continue.

I understand that I will receive a copy of this form.

Tammi Lemley  
Graduate Student  
Department of Psychology  
Austin Peay State University  
Clarksville, TN 37044  
(615) 219-2506

Dr. Charles B. Woods  
Associate Professor of Psychology  
Department of Psychology  
Austin Peay State University  
Clarksville, TN 37044  
(931) 221-7230

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Signature of Participant

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Date

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Signature of Researcher

**Assent to Participate in a Research Study  
For Students in Fifth to Eighth Grades  
Austin Peay State University**

You are being asked to help with a research study. Your parents have said it was OK for you to take part in the study, but we need your OK to go ahead.

What we will do during this study is to ask you a number of questions. The whole test will take about 45 minutes.

You do not have to answer any question that you do not want to and you can stop at any time. There won't be any penalty for stopping or not answering any questions. If you get tired, please let us know and we will take a break. If you don't want to do any more, please let me know and we will stop.

Your answers will help me (the student researcher) with a project that I am doing for school. Your answers will be collected and compared with those of other people your same age. However, your specific answers will not be told to anyone. No one will be able to tell what answers were yours.

If you have any questions, please ask me now. If you think of something later on, please call, or have one of your parents call, Tammi Lemley at (615) 219-2506 Monday through Friday from 9:00 until 4:00. If she is not in, she will return your call as soon as possible.

When you sign below, you agree to participate in the study as it has been described to you.

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Printed Name

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Signature

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Date

## Vita

Tammi M. Lemley was born in Springfield, TN on September 07, 1973. She was raised in Greenbrier, TN and graduated from Greenbrier High School in 1991. She attended Austin Peay State University and received a B.S. in Psychology in 1999 and her M.A. in Clinical Psychology in 2002.

Tammi is presently finishing her internship at FHC Cumberland Hall in Hopkinsville, KY.