A Comparison of the Reading Emotional of Students with and Without Dyslexia

Zeinab Mihandoost

Department of Elementary Education, Ilam Branch, Islamic Azad University, Ilam, Iran

Abstract: The purpose of this study is to compare emotional in students with and without dyslexia. In this study to identify dyslexia students’ researcher employed Dyslexia Screening instrument and Reading Text. The population of the research included 138 dyslexic students studying in schools in Ilam, Iran. In these population researcher selected randomly 30 students for pilot study. The remaining 108 dyslexic students were selected as the sample size but 80 students with dyslexia participated in this research as the parents of the other and 28 parents' of students with dyslexia did not permitted their children to participate. The researcher also selected 80 without dyslexia students who had been homogenized and compared using the emotional (self-concept and motivation) scales. The reliability and validity of the scales were confirmed. The analysis demonstrates a significant difference among the students with and without dyslexia.

Key word: Emotional - Dyslexia - Elementary school - Comparison

INTRODUCTION

The majority of students with learning disability encounter problems in one or several basic skills. Dyslexia is one of the common issues among students with learning disability. Researches indicated that throughout the world, the majority of people with learning disability have dyslexia [1; 2]. Based on the revised fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) published by the American Psychiatric Association [3], dyslexia is defined as a specific language-based disorder of constitutional origin characterized by difficulties in single word decoding and phonological processing. Dyslexia is manifested by difficulty with different forms of language including in addition to problems with reading, a conspicuous problem with acquiring proficiency in writing and spelling.

Dyslexic students’ failure causes them to be less motivated in reading tasks. These students hold more negative self-[4], feel more helpless [5] and avoid reading activities [6] more frequently than their typical peers. Studies since a few examples have shown that dyslexic students have problems related to motivation and self-concept. Motivation is the force that energizes and directs one’s drive to accomplish goals. Students need to have a strong desire to learn in school because many aspects of academic learning require persistent, hard work over a long period of time. Students with learning disability may appear to be unmotivated, while their lack of motivation may actually result from chronic academic failure [7].

Students with dyslexia have numerous situations in which they feel adequate for the demands of the situation, but many of these students feel less than capable when confronted with academic tasks in school. The past research literature on self-concept in students with dyslexia indicates mixed findings. Some researchers show that students with dyslexia have a lower self-concept than other students [8]; and additionally, some studies show that students with dyslexia do not have lower self-concept than other students and that the self-concept of students with dyslexia has increased when given academic failure [9].

It is widely accepted that a positive self-concept is important not only for students’ academic achievement but also for their long-term personal development. Although empirical and theoretical perspectives differ with regard to the exact nature of self-concept and its relation to other aspects of psychosocial functioning, it is largely agreed that low self-concept is often associated with serious outcomes, such as poor school performance, higher risk of school dropout and so forth [10]. That is to say, students with dyslexia often experience significant difficulty in school in terms of both academic performance

Corresponding Author: Zeinab Mihandoost, Department of Elementary Education, Ilam Branch, Islamic Azad University, Ilam, Iran, Tel: +989183407785.
and peer acceptance; thus, they are usually viewed as being at risk of having low self-concept [10].

**Material and Method**

**Participants:** In this study, the students of the fourth and fifth grades with dyslexia were identified by first using a questionnaire called, “Dyslexia Screening Instrument”. Two 100-word passages with 10 comprehension questions from the students’ book were selected and were assigned to the students to read. Their marks were also scrutinized in the first semester and it was found that their marks were lower than the marks of the students without dyslexia in the reading skills. To examine their IQ, Raven’s test was performed and the students with the average IQ higher than 90 made up the population of this research. Finally 138 dyslexia students in the fourth and fifth grades in Ilam, Iran were selected. The population of dyslexia students consisted of 40 male and 38 female fifth graders, 37 male and 22 female fourth grades. Their age ranged from 10 to 12 years. In these population researcher selected randomly 30 students for pilot study. Therefor, only 80 students with dyslexia participated in this study and 28 parents’ of students with dyslexia did not allowed them to participate (this study sample size is equal to population). The researcher selected 80 normal students who had been homogenized regarding IQ, parental education level and socioeconomic status of their family and compared by the reading emotional scales ( in this study for assessing reading emotional researcher used reading motivation and reading self-concept scales).

The students were given oral orders on how to complete the Reading Motivation Scale Wigfield and Guthrie [11] and Reading Self-Concept Scale [12]. I read the items aloud to the dyslexia students and circulated in the classroom observing the students understand the instrument and providing assistance when necessary and their peers owns reading and completed the scales. When the students had completed answering the questionnaire (approximately 45 minutes students with dyslexia and 20 minutes students without dyslexia), they returned to their classroom.

**Pilot Study:** The purpose of carrying out the pilot study was to evaluate the suitability and appropriateness of the use of the instruments. For the pilot study, 30 dyslexic students from Ilam were selected randomly with similar characteristics to be the participants in this study. The students consisted of 19 males and 11 females. This study was carried out from 1st March to 5th March, 2010. Then, the data was entered into SPSS version 18 software to determine the reliability of the scales. The reliability test was applied by calculating the Cronbach’s alpha on the variables to measure the inter-item reliability. There was consistency in the following variables: Reading Motivation and reading self-concept. Internal consistency is always determined with Cronbach’s alpha, a statistic calculated from the pair-wise correlation between items. Cronbach’s alpha coefficients of reliability and alpha of .70 is usually measured to indicate a reliable set of items (De vaus, 2002). Cronbach’s alpha reliabilities of the Reading Motivation and Reading Self-concept were .86 and .80 respectively. The results of the reliability coefficient showed that there is a high reliability for these instruments, so these instruments are considered appropriate to be employed in this study.

**Measure Reading Self-concept Scale:** The Reading Self-concept Scale (RSCS) [12], was used as a measure of reading self-concept. The RSCS contains 30 questions, which were read aloud individually to children who responded on a 5-point Likert scale (1. Never, 2. Seldom, 3. Sometimes, 4. Often, 5. Always). Response requirements were taught to children by means of 4 examples and 10 practice items, which took approximately eight minutes to complete. The RSCS was developed as part of a series of experimental studies in which previous research and theory in the areas of self-concept and reading were drawn upon. The RSCS measures reading and is suitable for ages 6 and above. The Cronbach’s alpha coefficient score for the scale is .80. The RSCS was individually administered and administration time varied between 15 and 30 minutes for each participant. Each response was scored from 1 (low reading self-concept) to 5 (high reading self-concept) with the total scale score calculated as the mean value of the 30 responses. Responses to the RSC-difficulty were reverse scored; meaning difficulty is actually easiness in correlations. Mean scores for each of the three subscales was calculated in the same manner with a total of four scores calculated: Total-RSCS, Competence, Difficulty and Attitude. In this study, scores on all RSCS sub scales show acceptable reliability (Total-RSCS α=.88, Attitude α=.84, Difficulty α=.71 and Competency α=.78).

**Reading Motivation Scale:** The Motivation for Reading Scale was developed by Wigfield and Guthrie [11], to assess 11 dimensions of reading motivation. This scale has 54-items designed to assess the 11 different aspects of reading motivation. Children answered each item on a 1 to 4 scale, with 1=never, 2=seldom, 3=often and 4= 
always. The Motivation Scale was designed to assess the reading motivation of students in grades 3 to 6. Validity evidence includes an accumulation of research results that support hypotheses consistent with the construct being measured [13]. Test–retest reliability for the Motivation Reading Scale ranged from 0.69 to 0.97. For this study, the Cronbach’s alpha reliability for the Reading Motivation Scale ranged from 0.76 to 0.88 and the test-retest reliability ranged from 0.76 to 0.90 respectively.

**Dyslexia Screening Instrument (DSI):** Dyslexia Screening Instrument (DSI) consists of checklists of basic neuropsychological skills designed by Coon, Waguespack and Polk in 1994. This instrument is a rating scale designed to describe the cluster characteristics associated with dyslexia and to discriminate between the students who display the cluster characteristics and the students who do not. It is designed to measure “entire populations of students or students who exhibit reading, spelling, writing, or language-processing difficulties” [14]. The DSI is designed to be used with students in grade 1 through 12 (age 6 through 21). Internal consistency reliability coefficients is.99 for elementary students which were determined using Cronbach’s coefficient alpha; and inter rater reliability for elementary students are .86 of the DSI that was assessed by determining the homogeneity of the statements and consistency of ratings across examiners. Coon et al [14], stated that “content was based on an extensive review of the relevant literature and on experts in the field of dyslexia” (P.20). Construct validity was supported by the discriminate analysis classifications which placed elementary and secondary students accurately (98.2% and 98.6% respectively). A classroom teacher who has worked directly with the student for at least four months should complete the DSI scale. This will result in a rating that will be more accurate because the teacher has observed the student over a lengthy period of time and can compare his performance with that of his classmates. For an elementary student, the preferred rater is the teacher who instructs the student in a variety of subjects. The teacher should complete the DSI form (based on the questionnaire answer: Never exhibits, Seldom exhibits, Sometimes exhibits, Often exhibits and Always exhibits). In this study Cronbach’s alpha reliability of the scale was.89.

**Raven’s Progressive Matrices Test:** The Raven’s Standard progressive Matrices (SPM) test was created to assess the educative component of “g” (general IQ) as defined in Spearman’s theory of cognitive ability [15]. Kaplan and Saccuzzo [16], stated that “research supports the SPM as a measure of general intelligence. The advanced form of the matrices includes 48 items, existing as one set of 12 (set I) and another of 36 (set II). Items are again presented in black ink on a white background and become increasingly difficult as progress is made through each set. These items are appropriate for ages 5-65. Lynn and Vanhanen [17], summarized a number of studies based on the normative data for the test which has been collected 61 countries. The internal consistency reliability estimate for the Raven progressive Matrices total raw score was.85 in the standardization sample of 929 individuals. This reliability estimate for the revised SPM indicates that the total raw score on the SPM possesses “good” internal consistency reliability as provided in the guidelines of the U.S. Department of Education[18], for interpreting a reliability coefficient. The SPM has been widely used for decades as a measure of educative ability “the ability to evolve high level constructs which make it easier to think about complex situations and events” [15]. In an extensive analysis of the cognitive processes that distinguish between higher scoring and lower scoring examinees on the standard progressive matrices and advanced progressive matrices, Carpenter, Just and Shall[19], described the Raven’s test “a classic test of analytic intelligence”. In this research Cronbach’s alpha reliability of the scale was.83.

**Reading Text:** I developed the reading texts based on the content of fourth and fifth grade textbooks. As during the administration of the research 80 percent of the book had been taught, the developed test was based on 80 percent of the Persian textbooks. The tests were evaluated by the fourth and fifth grade teachers and after 3 times revising them, they evaluated it as appropriate. The test included a story with one hundred relevant words understandable to each education level and it was followed by 10 questions which measured the students’ level of comprehension. The students were required to read out aloud the text and answer the questions. To determine reliability, Cronbach’s alpha was employed. The reliability coefficients for the fourth and fifth grades’ reading tests are.87 and.90 respectively.

**RESULTS**

SPSS was utilized for the analysis of the data. The findings of the study are presented in two parts: descriptive findings and the findings related to the hypotheses. In Table 1, means and standard deviations for self-concept and subscale self-concept (competence, difficulty and attitude) are shown for both the group.
Also, t-value and significance of the study, for self-concept and subscale self-concept (competence, difficulty and attitude) are shown. Table 1 shows the means and Standard Deviations for self-concept and subscale self-concept (Difficulty, Competence and Attitude). Also Table 1 shows that the mean for self-concept and self-concept subscale in the non-dyslexic students is higher than that of the dyslexic students’. The finding for the first research hypothesis is also presented in table 1. The first research hypothesis is: there is statistically a significant difference in self-concept between the students with dyslexia and students without dyslexia. As it can be seen in Table 1, self-concept, t = 5.16, p <.01, difficulty, t = 5.51, p <.01, and competence, t = 7.2, p >.46. Based on these results, the second research hypothesis is accepted but while competence subscale is not.

Table 2 shows the mean, standard deviation, t value and significance of the study for motivation and its subscale of the students with dyslexia and those without dyslexia. The table 2 also shows that the mean for motivation and motivation subscale in the non-dyslexic students is higher than that of the dyslexic students’ except for work-avoidance. Table 2 displays the independent t-test for dyslexic and non-dyslexic students. From the table 2, it is revealed that there is a statistically significant difference in motivation and its subscale for the dyslexic and non-dyslexic students. The findings related to the research hypothesis are also shown in Table 2.

**DISCUSSION**

In this research, we found that reading self-concept and motivation to read in without dyslexic students is higher than that of the dyslexic students. The first research hypothesis is: There is statistically significant difference in reading self-concept of students with dyslexia and students without dyslexia in elementary school. The second research hypothesis is confirmed at P =.000. The study shows that students with dyslexia possess the lower self - concept to reading than students without dyslexia. These findings are consistent with the great majority of experimental and meta-analytical studies [20-23], which demonstrate that indeed children with dyslexia perceive themselves as less competent in academic domains such as reading. The findings show...
that students with dyslexia have a lower self-concept than the students without dyslexia. This can provide suitable guidelines for educators and parents. Some researchers have suggested that educators be aware of the potential stigmatizing effects of the selection process for special education on students with dyslexia [5; 24]. Individuals who work with students with dyslexia need to know how to prevent low self-concept in children with dyslexia and be aware of the interventions available to help them.

The second hypothesis that states there is a statistically significant difference in motivation of students with dyslexia and students without dyslexia in the elementary schools was investigated. The first research hypothesis was confirmed at \( p < 0.000 \). The result showed that there is a significant difference in the motivation and motivation subscale of the without dyslexic students and the dyslexic students. Apparently, the results were in line with several studies done in this area. Chapman and Prochnow [4], presented that dyslexic students failure leads them to be less motivated in reading tasks. Bender and Wall [25], reported that elementary students with learning disability have lower motivation. Burden and Burdett [26], findings revealed that the experience of dyslexia may lead to a major challenge to the self-esteem of some students with dyslexia or even to a negative impact upon their general self-development.

The current study by Morgan, Fuchs, Chmpton, Cordray and Fuch [27], suggests marked differences in motivation between skilled and unskilled readers. Students’ motivation to read is an important factor for the success of reading interventions because lack of motivation adversely affects the students’ ability to read [28]. Due to the serious problem with processing of information and consequently leading to frustration, students with learning disability often exhibit low motivation to read [29]. Students’ motivation to read predicts reading achievement; in fact, motivation to read requires mental readiness and dedication to acquire knowledge through reading and eventually, enlarge perception and appreciation.

**Future Directions:** Employ the reading self-concept and reading motivation scales enabled the gathering of valuable data on student’s beliefs about themselves as readers in terms of difficulty, skill, self-concept and motivation. A helpful addition to this data would be the use of interviews to gather qualitative information pertaining to the habits of students with dyslexia such as time spent on reading, perceptions of early reading knowledge and family reading habits.

**CONCLUSION**

The aim of this study was to compare reading self-concept and reading motivation of dyslexic and without dyslexic students of grades 4 and 5 in the elementary schools in Ilam, Iran. In this study, the reading motivation scale by Wigfield and Guthrie [11] and the reading self-concept scale by Chapman and Tunmer [30], were employed to obtain data. Statistical analysis revealed significant differences in reading motivation and reading self-concept of the students without dyslexia and those with dyslexia. This result is consistent with other findings in the area of reading motivation and reading self-concept.

**REFERENCES**