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Effectiveness of Self – Instruction Strategy in Improving Word Recognition Skills for Students With Learning Disabilities

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Abstract: *The purpose of this study was to identify the effectiveness of self – instruction strategy in improving word recognition skills for Students with Learning Disabilities (SLD) at Najran in the Kingdom of Saudi Arabia. The sample of the study consisted of (14) SLD; it was divided randomly into two equal groups: control and experimental. The students in the experimental group have studied the word recognition skills by self – instruction strategy; however, the students in the control group were received their teaching by the conventional method. The word recognition skills test was applied for two groups as pre-test and post-test. Results showed the effectiveness of self – instruction strategy in improving word recognition skills for SLD in favor of the students in the experimental group.*

Keywords: *self – instruction strategy; word recognition skills; Students with Learning Disability.*

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I. Introduction

'Reading' in the opinion of many thinkers is a mental process that includes interpreting the symbols that the reader receives through his eyes, and then pronouncing them correctly, and expressing the different positions represented by the reading symbols. Therefore, 'reading' has two processes: the first is a physiological process, i.e. the individual's response to what is written. The second is a mental process through which the meaning is interpreted. This process includes thinking and reasoning through previous experiences (Abdullah & Mustafa, 1994).Those interested in cognitive psychology in recent years have tended to pay attention to the underlying causes of reading problems in general, and dyslexia in particular. Where their interests shifted from studying the environmental and social causes that lead to the low levels of reading performance among students to the interest in studying the cognitive processes that the student uses when reading, through which he can know some of the causes of reading weakness. This seems to have made significant progress, as it revealed the possibility of differences in the processes used in reading, can distinguish these differences between ordinary pupils and dyslexia readers (Snowling1995).

In the last two decades, it has been thought that the main difficulty facing dyslexia is the recognition of single words (Gough & Tunmer, 1986).The "Al-Zayat" (1998) showed that the treatment of reading (LD) is relatively difficult. Pupils who are trained in and know the skills of word recognition do not make tangible progress on reading comprehension tests and need to learn effective strategies that help them on reading comprehension.

Because of current inclusive practices, pupils with LD generally spend all or most of their day in the general education classroom. However, the general education classroom is often not set up for pupils with LD to succeed. From around fourth grade and up, most instruction is delivered in a lecture format. This delivery style demands effective note taking, adequate writing skills, and rapid and efficient information processing. Pupils must be able to focus on salient information, accurately remember important details, and retrieve this information for assessments or examinations. This type of learning puts pupils with LD at a definite disadvantage. Without the necessary cognitive skills, background knowledge, and appropriate strategies they may flounder. Thus, it is important that pupils with LD should be taught strategies to focus and enhance their efforts. Pupils with LD have several characteristics that negatively affect their study skills (Rollanda, 2007).

The current educational process needs to be developed and improved. The educational reality in terms of modern developments and trends is still governed by the nature of the standard procedures and practices used by Arabic language teachers in the traditional use of teaching methods and the limited use of immobilized means and techniques (Al- Hashimi, 2001).The modern methods and styles that educators call for use focus on the learner as well as the educational process, and have a positive role during the required learning. Hence, the need to move from the educational philosophy that emphasizes the role of the teacher as the leader and executor of educational activities to the educational philosophy that considers the student is the center of the educational. In the light of that philosophy, the trend towards modifying cognitive behavior has emerged as an intermediate

trend that combines the behavioral and cognitive trend. Behaviorists focus on modifying measurable observable behavior and on solving problems by eliminating misconceptions and replacing them with useful ideas. Thus, Self-Instruction Strategy emerged as one of the behavioral modification. It is based on directing the individual to engage in behavior that enables him to deal with situations that cause psychological stress through talking with the self, which leads to the solution of problems and then the occurrence of rest and relaxation (Abu Hmeidan, 2003).On the other hand, educational and psychological studies indicated the effectiveness of the self-instruction strategy in the treatment of the therapeutic and diagnostic aspects, such as (Brenda, 1998). Studies that promote the use of self-education strategy as one of the strategies for modifying cognitive behavior in teaching processes such as (Blandford & Lioyd,1987), which illustrated the impact of a program based on a self-instruction strategy to improve manual handwriting in primary school pupils with disabilities. (Marian,2003), aims to improve the handwriting of some students who suffer from a bad handwriting and increase their speed of writing through the use of a program based on the strategy of self- instruction among primary students. The Al-Zoubi study (2006), which aimed at building a training program based on the self-instruction strategy and investigating the impact on the academic achievement of fifth graders in Arabic, was also recommend.

In this regard, "Jabir" (2011) emphasized that the need to find a solution to the problem by providing opportunities and many areas to train students in the correct writing of the vocabulary contained in the books of teaching Arabic in the primary grades. The study of "AL Awaidi" (2014) aimed to describe the strategy of self-instruction diction and to reveal its effectiveness to give pupils in the second grade primary diction skills.

The Self-Instruction Strategy is a cognitive-behavioral modification strategy, defined by Meichenbaum as a training method combining the cognitive form (trainer), external public orientation (by the trainer), self-direction (by the trainee) , and self-guidance of the trainee (from the public to the invisible) to reach the trainee's hidden self-guidance (Meichenbaum, 1978).Meichenbaum adopted the modification of cognitive behavior. This approach came in response to the trend of modifying traditional behavior, because the trend of modifying traditional behavior does not give enough attention to knowledge processes. On the other hand, many researchers have pointed out that the methods of modifying traditional therapeutic behavior have failed to predict the interpretation of complex human behavior. Over the past three decades, cognitive behavior modification has proven to be successful in addressing complex behaviors such as aggression, social isolation, overload, and introversion (Rebnson et al., 1997) The approach to modifying traditional behavior is based on changing the environment itself directly, through the classical and procedural model of conditioning, as they ignore the individual himself, his feelings and thoughts. The aim of the modification of cognitive behavior seeks to explain behavior by focusing and paying attention to how the individual perceives and interprets environmental stimuli, and therefore the rate of cognitive behavior concerned the development of remedial procedures that include the participation of the client himself in the interpretation of his behavior. The basic principle underlying the programs of modifying cognitive behavior, which is comprehensive and integrated, is the interest in analyzing patterns of human thought, and despite the diversity of methods of modifying cognitive behavior, they all attempt to change cognitive processes and misconceptions, which are characterized by multiple labels, Automatic Thinking (Al- Khateeb, 2003). Self-Instruction Strategy assumes that training in internal dialogue can change the target behavior, i. e. what people say to themselves determines what they are doing. The introduction of the cognitive element "self-dialogue" controls behavior that is reflected in the the individual self-confidence , independence and degree of responsibility, and helps the individual to make decisions and solve problems by choosing what he deems appropriate (Al-Azza & AbdAl-Hadi, 2001).

The importance of Self-Instruction Strategy, beginning with the inner dialogue, "silent mental talk," this dialogue that arises from the moment of thinking of the individual learner in something, or the newly heard or silent writing or other ways of learning. Such talk is not only an internal conversation with the self, but also an influence on cognitive processes. This discourse is in the form of self-directed orders and instructions or verbal patterns and interpretations of feelings and perceptions (Meichenbaum, 1987).

Vygotsky points out that this phenomenon (self-dialogue) grows and develops with the increase in age and is considered necessary for cognitive and linguistic growth, and also indicates that this self-dialogue disappears at the age of 8-9 years as it does not end at all but moves from the public form to The Hidden Formula (Al-Katami, 2000). Luria sees that the behavior of pupils is acquired initially through instructions given to them by other people, and then they gain the ability to control their own behavior through explicit instructions they say to themselves, which later become implicit self-instructions (Al-Shennawi & AbdAl- Rahman, 1998)

Meichenbaum, (1977) points out that in the conventional strategy, the teacher directs the activities of learning, but self-instruction is learner-directed. Here, the pupil takes charge of the learning activity, while the teacher merely guides. Self-instruction strategy is therefore a cognitive learning strategy, in which learning task is broken into steps and the learner himself/herself directs and appraises himself/herself as he/she goes through the task step by step. Self-instruction strategy takes place in stages: (1) cognitive modeling stage: Where the teacher takes the pupil’s position and models the behavior for the pupils to copy; (2) overt external guidance: Where the teacher prompts the Pupils on what to do before the pupil then completely takes over; (3) overt self-

guidance: Where the pupil performs the actions while speaking aloud the actions; (4) faded overt self-guidance: Where the pupil goes on to perform the action and whispers it instead of talking aloud; Finally, (5) covert self-instruction: Where the pupil performs the action correctly on his/her own without talking aloud or even whispering (Adani et al, 2012). In today's schools, too many pupils struggle with learning to read. While there are no easy answers or quick solutions for optimizing reading achievement, there now exists extensive research about the kind of instruction that needs to be given to pupils so they can learn to read well. For our communities, we must become well-versed in science-based reading instruction in order to affect school-wide policy. For our own pupils, we must do this to be sure they are receiving the best possible instruction in reading (Joan S, 2008).

According to Salvia and Ysseldyke (1998), pupils with learning disabilities often have difficulties with word recognition. Word recognition explores the pupil's ability with respect to sight vocabulary (Roger, & George, 2008). In Fitzsimmons (1998), the results of many researches indicate that there is a clear linear relationship between word recognition skills and reading comprehension skills. As reading comprehension skills and other reading activities rely heavily on word recognition skills (Al-Anzi, A, 2008). Therefore, educators must make a conscious effort to examine and reflect on the best strategies they use for teaching word recognition skills for pupils with learning disabilities.

Self-instructional strategy, in the context of this study, is a cognitive and metacognitive learning instructional strategy. It involves the use of designed that pupils can learn either without a teacher's intervention or with minimum guidance while applying different learning skills. Application of self-instructional learning strategy has been linked to (SLD) performance improvement in word recognition skills.

In this sense, the problem of the study arises in the following question:
What is the effectiveness of Self-Instruction Strategy in improving the word recognition skills for students with learning disabilities at Najran in the Kingdom of Saudi Arabia.?

Null Hypothesis
The hypotheses that were tested at 0.05 level of significance are:
(1) There are no statistically significant differences between the mean rank of experimental and control groups on the pre-word recognition skills test.
(2) There are no statistically significant differences between the mean rank of experimental and control groups on the post-word recognition skills test.

II. Method

2.1. Research Design

This study was based on the quasi-experimental method to test the effectiveness of self – instruction strategy (independent variable) in improving word recognition skills (dependent variable) among SLD in Najran primary Schools, Saudi Arabia.

2.2. Participants

The participants of the study consisted of (14) boys SLD enrolled at the primary schools in Najran, Saudi Arabia. The participants were divided randomly into two equal groups control (n=7) and experimental (n=7). The experimental group received instructions on skills of self-instruction strategy and they used it to learn word recognition skills on their own, while the control group was taught using the normal conventional, teacher-dominated learning strategy.

2.3. Instruments

This study included the following instruments:
2.3.1. The Word Recognition Skills Test: In order to develop the test, the researcher reviewed the previous studies (AL Anzi, 2008; Al-Jarf, 1995; Esther, 2000). The first draft of the test contained of (28) questions, which divided into four domains related to Word Recognition Skill in terms of one of its parts, distinguishing the spoken word skill, Word formation skill and Merge sections skill. However, the test was reviewed by (9) experts in the field of special education, curriculum and instruction, and psychology from Najran University. However, the final draft of the test consisted of (20) item divided equally on four domains of Word Recognition Skills in terms of one of its parts, distinguishing the spoken word skill, Word formation skill and Merge sections skill. Thus, each correct answer takes (1) mark, and (0) mark to the wrong answer. In order to identify the reliability of the test; the researcher was applied the test on a pilot study that consisted of (30) SLD. The reliability coefficient of the test was (0.89) by using Kuder-Richardson Formula (KR-20).
2.3.2. Teacher's Guide of self-instruction strategy: In order to identify the major steps in the development guide of self-instruction strategy, the researcher depended on self-instruction strategy that was prepared by

Meichenbaum, (1977). The guide in this study consisted of 27 sessions related to Word Recognition Skill in terms of one of its parts, distinguishing the spoken word skill, Word formation skill and Merge sections skill. In order to ensure the validity of the guide, the researcher presented the guide to the same reviewers who reviewed the Word Recognition Skills test. The final draft of the guide consisted of 25 sessions, duration of each session is (45) minutes every day, and (5) sessions in per week.

III. Procedures

This study follows these procedures:

1. The sample of study consisted of (14) SLD from the primary schools.
2. The sample were divided randomly into two equal groups, control (n=7) and experimental (n=7).
3. The students in the experimental group have studied the word recognition skills by using self – instruction strategy; however, the students in the control group have studied the word recognition skills by the conventional method.
4. The word recognition skills test was developed and applied for the two groups as pretest and posttest.
5. The test was designed to be applied individually. The word recognition skills. The test consisted of (20) item divided equally on four domains of Word Recognition Skills.
6. Teacher's guide of self-instruction strategy was developed which consisted of 25 sessions related to Word Recognition Skill in terms of one of its parts, distinguishing the spoken word skill, Word formation skill and Merge sections skill.
7. The researcher trained Arabic teacher on the application procedures of self-instruction strategy on the experimental group members. The duration of training was (5) days and (45) minutes every day.
8. During the training process, Arabic teacher provided with information about the concept of self-instruction strategy, its significance, the role of teacher and pupils, and the difference between self – instruction strategy and traditional way of teaching. In addition, Arabic teacher has been trained on how to prepare lessons by using self – instruction strategy.

IV. Results

4.1 *Results related to the first hypothesis: "There are no statistically significant differences between the mean rank of experimental and control groups on the pre-word recognition skills test "? For this question Mann-Whitney test was used as shown in Table 1.*

Dimension	Group	N	Mean Rank	Sum of Ranks	Z	Sig.
Word Recognition Skill in terms of one of its distinguishing the spoken word skill	Control	7	7.00	49.00	-1.000	.710
	Experimental	7	8.00	56.00		
	Control	7	8.43	59.00	-1.363	.456
Word formation skill	Experimental	7	6.57	46.00		
	Control	7	2.62	45.50	-1.041	.383
Merge sections skill	Experimental	7	6.38	59.50		
	Control	7	7.71	54.00	-.214	.902
	Experimental	7	7.29	51.00		
Score Total	Control	7	6.21	43.50	-1.180	.259
	Experimental	7	8.79	61.50		

Table 1: Mann-Whitney results according to pre-word recognition skills test

Table 1 demonstrates that there are no statistically significant differences between the mean rank of experimental and control groups on the word recognition skills test. These results showed that the two groups are equivalence on the pretest.

4.2 *Results related to the second hypothesis: "There are no statistically significant differences between the mean rank of experimental and control groups on the post-word recognition skills test "? For this question Mann-Whitney test was used as shown in Table 2.*

Table 2: Mann-Whitney results according to post-word recognition skills test

Dimension	Group	N	Mean Rank	Sum of Ranks	Z	Sig.
Word Recognition Skill in terms of	Control	7	4.71	33.00	-2.734	.011

	Experimental	7	10.29	72.00		
distinguishing the spoken word	Control	7	4.86	34.00	-2.381	.017
	Experimental	7	10.14	71.00		
Word formation skill	Control	7	5.07	35.50	-2.442	.026
	Experimental	7	9.93	69.50		
Merge sections skill	Control	7	5.14	36.00	-2.360	.038
	Experimental	7	9.86	69.00		
	Control	7	4.00	28.00	-3.169	.001
Score Total	Experimental	7	11.00	77.00		

Table 2 shows that there are statistically significant differences on the all domains of post-word recognition skills test due to the variable of group, in favor of SLD in the experimental group.

V. Discussion

This study aimed to measure the effectiveness of self – instruction strategy in improving word recognition skills among (SLD). Results showed the effectiveness of self – instruction strategy in improving word recognition skills among (SLD) in the experimental group. The data in Table 2 indicate that students exposed to self-instruction strategy achieved better in word recognition skills in all dimensions than those in control group. This supports the earlier findings by Al-Zoubi (2006), on the effect of self-instruction strategy on achievements in Arabic language. In that study, it was found out that the self-instructional group significantly outperformed the traditional instruction group, indicating that pupils who used the self-instruction strategy had better performance on the word recognition skills test. The researcher found that SLD in the experimental group had achieved an improvement in learning word recognition skills as a result for using of self – instruction strategy. Moreover, self – instruction strategy provided SLD in the experimental group an opportunity in the effective learning and played a positive role in the performance of Arabic activities. On the other hand, positive feedback to the pupils' answers encourages and stimulates pupils to learn word recognition skills. This can aid pupils to learn to be self-instructive. The results of Timothy and Wheeler study (1994) suggested that the training on self – instruction strategy led to definite improvements in the motivation of the students. Adani (2012) indicated that self-instruction strategy has the capacity of providing learners some control over instruction. This type of learner control can range from simply controlling the pace of the instruction, to letting learners set their own learning goals and find their own instructional materials. Meanwhile, learners become active by having a purpose for learning, finding motivation, being aware of the most effective way to learn, and finding a way to practice and use learning materials. And if self-instruction strategy has any disadvantage, it is the lack of other students with whom to share ideas. Self-instruction strategy allowed members of the experimental group opportunities to express their opinions without fear and facilitated achievements in word recognition skills of pupils trained in it. Therefore, there was a significant difference in word recognition skills test scores of pupils trained in self -instructional strategy than those that were not trained. The findings are also in line with that of Anyichie & Onyedike, (2012) who showed that experimental group who were trained in self-instructional strategy achieved better than control group who were not trained.

The results of this study agree with related studies, which confirmed the effectiveness of use of self-instruction strategy (Al-Awaidi, 2014; Adani et al., 2012; Anyichie, & Onyedike, (2012); Al-Zoubi, 2006).

VI. Conclusion

In light of the study results, given that self-instruction strategy is very effective in improving the achievement in word recognition skills or social skills among SLD, it should be in corporated in the teacher education programs to prepare the prospective teachers, who may teach the low achieving students as well as the students with disabilities. The researcher recommended organizing training workshops for special and general education teachers on the application of self-instruction strategy, and curriculum planners should plan the school and class activities to be more student-centered. This will help the students, especially those with learning disabilities, to achieve better academically. It will also help the students to develop confidence in their abilities to handle any learning task or problem they meet. The researcher also recommends conducting studies related to effects of self-instruction strategy in improving word recognition skills or social skills among SLD.

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