

Original Article

Social Competence of Students with Learning Disability: Advantages of Verbal Self-Instructional Package

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Objectives: Verbal self-instruction strategy is one of the useful techniques for treating individual with learning disability. The purpose of the present study was to determine the effect of Verbal Self-instructional Package on the social competence of students with learning disability.

Methods: The study was done in a quasi-experimental research and pre-test, post-test design with control group. The population included all male students with learning disability who were studying in two learning disability centers of Hamedan City from 3rd grade to 5th grade. The participants included of 40 male students diagnosed with learning disability who were selected through convenience sampling method and were placed in control group and experimental group (20 students in each group). The verbal Self-instructional Package was held for 8 sessions in a month (2 sessions per week) for experimental group. To collect data, the pre-test and post-test scores of Social Competence Questionnaire were used.

Results: The findings of multivariate analysis of covariance showed that Verbal Self-instructional Package significantly affects social competence and its components; cognitive skills and abilities, behavioral skills, emotional competence and set of motivations and expectations in students with learning disability.

Discussion: Using verbal self-instruction can enhance the social competence of students with learning disability. Thus it is recommended to use this adjusted package in schools and psychological clinics for these students.

Keywords: Verbal Self-instruction, learning disability, social competence

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Introduction

According to Individuals with Disabilities Education Act (IDEA), learning disability refers to disability in some basic psychological processes that include understanding language and its usage. This disorder appears in listening, thinking, reading, speaking, writing, calculating, and spelling difficulties. This disorder is different from disabilities caused by visual, auditory, and motor problems, or intellectual disabilities, emotional disorders, and unpleasant environment and economic conditions (1). In other words, despite the normal intelligence, learning disability can occur and it should be differentiated from other disorders and educational problems that are developed due to time shortage, weakness in instruction, cultural factor, and ear and eye injuries (2). The prevalence of learning disability has been

reported 2 to 10 percent (3). In recent 10 years, the number of students suffering from learning disability has increased 38 percent (4). Thirteen percent of 5th-grade primary school students suffer from learning disability (5). Students with learning disability, in spite of their normal intelligence, are differentiated from others due to their specific psychological characteristics such as negative attitude to themselves and others, unresponsiveness in social interactions, unsuitable self-disclosure patterns, passiveness in learning process, problem-solving dysfunction, learned helplessness, dysfunction in applying cognitive strategies (6), and disability in social processing and understanding complex emotions (7). Recently, much attention has been given to social skills failures of individual with learning disability. Experts mention that children with learning

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disability may face difficulties while interacting with parents, teachers, peers, and others (7). They also believe that these children's emotional-social problems are outcome of shortage in social understanding and they lack sufficient skills in understanding subtle emotional skills. Some research have been concentrated on the concept of "Social Competence" which refers to some social problems (1). There are different opinions about the social competence of children with learning disability: language difficulties interfere with their social competence, the social competence problems are based in perceptually mediated skills, and learning disabled children differ from non-learning disabled peers in both verbal and perceptual domains of cognitive ability. A study indicated that intelligence, which encompasses both verbal and nonverbal abilities, emerges as the best predictor of social competence scores and next the social economy status predicts higher social competence scores (8). Social competence is a complex concept that is composed of four components: 1. Effective use of social skills, 2. Lack of maladaptive behavior, 3. Positive communications with others, and 4. Proper and age-appropriate social cognition. Evidence shows that most of students with learning disability lack high social competence; they may have lower social status and fewer friends as compared with normal students, and they may be neglected or rejected by their peers (9).

There are different approaches for treating individual with learning disability. In recent decades, Cognitive Behavioral Therapy (CBT) programs appeared as promising approaches in treating these children. For instance, Parent Training Program (10) and Social Skills Training (11) were reported as effective programs. Verbal self-instruction strategy is one of the useful techniques in this domain (12). The importance role of language, inner speech and cognitive control in children and young adults are Known. The role that inner speech plays in flexibly shifting between tasks, addressing whether it is used to represent task rules, provide a reminder of task order, or aid in task retrieval were under the investigation. While some studies suggest an increase in the spontaneous use of verbal strategies with age, implying an increase in top-down control during shifting, more research are needed to specify the nature and precise role that inner speech plays in the development of cognitive control through childhood (13). Generally, when

individuals begin to talk to themselves, they forget to indulge in negative thinking about their failures and to generalize these failures. The goal of self-instruction is to help individual have more adaptive thoughts and improve his/her performance in any specific assignment (14). The results of a study on influence of self- talk on students with learning disabilities (LD) showed a significant difference between the spontaneous self talk of LD students and their peers in pre and post-test. The LD students in pre-test were found to produce significantly more negative self- talks and less positive self-talks than the average group but in the post-test there was a revers trend in the pattern of self-talk (15).

Although no research has directly applied verbal self-instruction strategy on social competence of students with learning disability, few similar studies have reported the effectiveness of this technique. For example, Wachelka and his colleagues (16) have shown the effectiveness of positive self-talk strategy on decreasing exam anxiety and improving academic self-esteem in students diagnosed with learning disability. Dush et al (17) examined 48 research papers from 1971 to 1987 that had studied the anger, delinquency, and some problems in ADHD children. Their findings suggest that teaching verbal self-instruction techniques leads to improvement of performance in controlling anger, delinquency, and some positive effects on the behavior problems of ADHD children. A study (18) indicated that when children with behavior problems use the self talking in their treatment process, their performance is better than the time they do not.

The rationales for doing this research could be: 1- students diagnosed with learning disability may struggle with behavioral problems such as depression, anxiety, negative affections (19) and there should be different intervention for treatments of these students. 2- It seems that the prevalence of this disorder is high in students and enhancing the social skills and positive affects are the key factors for improving the mental health of these students. 3- There is no local research about the effects of verbal self-instruction on social competence of students diagnosed with learning disability. Therefore, this study intended to examine the effectiveness of verbal self-instruction training on social competence of students diagnosed with learning disability.

Methods

This quasi-experimental research was conducted using pretest-posttest design with a control group. All male students with learning disability who were studying in two learning disability centers of Hamedan City in 2014 (3rd grade to 5th grade) were included in this study. The sample were consisted of 40 male students diagnosed with learning disability who were selected through convenience sampling method and were randomly placed in control and experimental groups (20 individuals in each group). The sample size was determined according to similar studies and Cranach formula (with power of %80 and error of %5). After the permission of Hamedan Exceptional Education Organization, parents, and participants, were issued and the identification and diagnosis of students with learning disability was done, the intervention program was applied. Inclusion criteria of this research were: diagnosis of learning disability based on Colorado Learning Difficulties Questionnaire, scoring 90-110 in Wechsler Intelligence Scale, studying in third, fourth, or fifth grade of primary school and weakness in interpersonal relationships based on the results of Social Competence Questionnaire. Exclusion criterion of this research was: suffering from any visual, auditory, and motor disabilities, Autism, schizophrenia, etc.

The students were briefed about confidentiality of the names, identities, and findings. Then, those students diagnosed with learning disability were randomly put into experimental and control groups. In both groups the pre-test was done by filling out the social competence questionnaire carefully and completely. The participants were assured that they can quit the study whenever they want to. The experimental group received Verbal Self-instruction Training for eight sessions of 1-hour, two times a week. The base of instruction program was from Meichenbaum & Goodman (20) verbal self instruction with some adjustments from the researcher and professionals.

Intervention included eight sessions. 1) Specifying assignments: The first step in verbal self-instruction training was assigning appropriate assignments. In this step, the instructor makes decision about an assignment that requires attention and concentration, 2) cognitive modeling: In this step, the instructor, as a cognitive model, performed the logical algorithm and steps of doing that assignment with a loud voice for the child, 3) overt adult guidance: In this step, child's behavior

was organized by instructor's verbal prompts. The steps of doing the assignment were performed by the child himself, 4) overt self-guidance: In this step, the instructor introduced the assignments to the child and asks him to do the assignment while stating the steps aloud, 5) Fifth session: modeling with faded self-guidance: This is similar to the second step. The goal of this stage was to teach the child to whisper the steps to himself, 6) training with overt self-guidance: This is similar to fourth step. But, now the child whispered the steps of assignment to himself, 7) modeling with covert self-guidance: In this step, while doing assignment, the instructor only moved her lips. Simultaneously the child is asked to imagine what she said to herself while performing, 8) training with covert self-guidance: in the last step, the child could be able to think before doing assignment, and to focus on each of the steps through internal self-talk. One week after the intervention, post-test was administered to both groups.

In order to collect data, the "Colorado Learning Difficulties Questionnaire" and "Social Competence Questionnaire" have been used. Colorado Learning Difficulties Questionnaire is a new instrument for early diagnosis of learning disabilities in students. This instrument has been normalized in Iran. The reliability of this test has been reported 0.90 (using Cronbach's Alpha) and 0.94 (using retest method). The validity of this questionnaire has also been confirmed using content, construct, and Discriminant validity (21). Social Competence Questionnaire includes 47 items that are responded as a 7-level Likert scale (from strongly agree to strongly disagree). This instrument measures four dimensions, cognitive skills and abilities; behavioral skills; emotional competence and set of motivations and expectations (22). The scores range were from 47 to 329. Students scoring lower than 150 are selected as students with difficulty in social competence. Cronbach's Alpha coefficient was reported 0.88 for this scale. Retesting reliability coefficient, in duration of 4 weeks, was also reported 0.89. Using factor analysis, construct validity of this instrument has been reported 0.83, suggesting high external validity of the test (23). Finally, using multivariate analysis of covariance, the data were analyzed by SPSS (Version 16). Certain assumptions must be met for the MANCOVA to be used appropriately: normality, homogeneity of variances, homogeneity of co-variances, and independence of observations. All these requirements have been met in the present study.

Results

According to the analysis of data which were collected, the demographic, descriptive, and inferential tables are reported. According to table (1), most of the subjects of the study were in third grade of the primary school.

Table 1. Distribution of school grades for the two groups

| Group | Grade | Frequency | Relative frequency |
|--------------|--------|-----------|--------------------|
| experimental | third | 10 | 50.0 |
| | fourth | 7 | 35.0 |
| | fifth | 3 | 15.0 |
| | total | 20 | 100.0 |
| control | third | 9 | 45.0 |
| | fourth | 8 | 40.0 |
| | fifth | 3 | 15.0 |
| | total | 20 | 100.0 |

According to Table (2), most of the subjects of experimental group were diagnosed with dysgraphia, and dyscalculia, and most of the subjects of control group struggle with dysgraphia.

Table 2. Distribution of type of disorder in subjects

| Group | Disorder in | frequency | Relative frequency |
|--------------|-------------|-----------|--------------------|
| experimental | reading | 6 | 30.0 |
| | writing | 7 | 35.0 |
| | calculating | 7 | 35.0 |
| | total | 20 | 100.0 |
| control | reading | 6 | 30.0 |
| | writing | 8 | 40.0 |
| | calculating | 6 | 30.0 |
| | total | 20 | 100.0 |

Table (3) indicates that the mean scores for social competencies and its components were increased in post-test.

Table 3. Descriptive measures for Social Competence Questionnaire

| Group | subscales | f | Pre-test | | Post-test | |
|--------------|-------------------------------|----|----------|-------|-----------|-------|
| | | | mean | SD | mean | SD |
| experimental | Behavioural skill | 20 | 136.25 | 14.33 | 149.80 | 11.28 |
| | Cognitive skill | 20 | 15.10 | 3.11 | 18.45 | 3.11 |
| | Emotional competence | 20 | 13.60 | 2.64 | 17.55 | 2.35 |
| | Set of motivation | 20 | 20.45 | 3.13 | 23.10 | 3.12 |
| | Social competence total score | 20 | 185.40 | 15.42 | 208.90 | 11.71 |
| control | Behavioural skill | 20 | 135.25 | 9.38 | 133.60 | 13.90 |
| | Cognitive skill | 20 | 16.30 | 1.97 | 15.00 | 2.12 |
| | Emotional competence | 20 | 13.45 | 3.37 | 13.25 | 2.65 |
| | Set of motivation | 20 | 20.35 | 2.23 | 20.25 | 2.63 |
| | Total score | 20 | 185.35 | 9.66 | 182.10 | 16.13 |

According to table (4), the intervention was significantly effective on all social competence with controlling pre-test effect ($P<0.01$).

Table 4. Comparing post-tests of the two groups (while controlling pre-test effect)

| source of variation | subscales | DF | F | P-value | effect | Statistical power |
|---------------------|-------------------------------|----|--------|---------|--------|-------------------|
| Pre-test | Behavioural skill | 1 | 75.69 | .000 | .690 | 1.000 |
| | Cognitive skill | 1 | 111.35 | .000 | .766 | 1.000 |
| | Emotional competence | 1 | 3.70 | .063 | .098 | .464 |
| | Set of motivation | 1 | 32.84 | .000 | .491 | 1.000 |
| Group | Behavioural skill | 1 | 47.43 | .000 | .582 | 1.000 |
| | Cognitive skill | 1 | 25.08 | .000 | .425 | .998 |
| | Emotional competence | 1 | 19.38 | .000 | .363 | .990 |
| | Set of motivation | 1 | 17.65 | .000 | .342 | .983 |
| | Social competence total score | 1 | 114.31 | .000 | .771 | 1.000 |
| error | | 34 | | | | |
| total | | 40 | | | | |

Discussion

The purpose of the present study was to determine the effect of Verbal Self-instructional Package on the social competence of students with learning disability. Data analysis showed that verbal self-instruction training increased social competence of these students. This finding is consistent with the findings of several studies (16-18,24) indicating that verbal self-instruction training could affect the different aspects of learning disabilities. Verbal self-instructions are a useful tool for remembering and retrieving the next task goal and also for reducing action-control deficits in younger children and older adults (25). Self-talk and self-suggestion can have an effect on developing adaptive and maladaptive behaviors. Meichenbaum and Gilmor (26) considered self instruction as a form of cognitive prosthesis that helps to overcome inadequate behavior. Verbal self-instruction enhances a positive task orientation, help maintain task relevant behaviors and provide ways of coping with failure and self-reinforcing success. By self instruction children can master self control over their thoughts and behaviors, and develop independence. Through verbal self-instruction, children enhance their general coping skills in a wider variety of context. The most important element of this therapeutic strategy is that it teaches the individual to use positive suggestions or encouraging sentences. In this way, the students will be able to cope with stressful events or other similar situations. For example, self-monitoring and self-directedness, with their high capacity of decreasing anxiety, make the individuals able to

maintain their emotional stability in times of coping with threatening situations and difficult assignments. Therefore, it can be said that utilizing self-monitoring techniques by students can prevent them from anxiety and learning deficiencies (13). Looking at the effect of verbal self-instruction on social competence of students with learning disability, this strategy can help students learn problem-solving process, avoid emotional problems, identify basic aspect of the problem, think about the possible solutions, assess the different solutions, and select the most adaptive solution (1).

Due to the short time dedicated to this research, the author may have not presented a complete picture of the social competence of students with disabilities. Therefore, considering other factors such as family function, social-mental skills development, personality variables, are recommended for future research. For better generalization of the results, it is also recommended to conduct such studies with female students and other exceptional individuals.

Conclusion

The findings of multivariate analysis of covariance showed that Verbal Self-instructional Package significantly affects the social competence and its components in students with learning disability, thus It can be used in schools and psychotherapy clinics for enhancing social competence in students with learning disability.

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