Self-Regulation among Students with Learning Disabilities in English Language and its Relationship to Some Variables

By Mohamad Ahmad Saleem Khasawneh

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Abstract- The present study aimed at identifying the level of self-regulation among students with learning disabilities in English language in Irbid Governorate and its relationship with the variables of gender and school grade. The study sample consisted of (380) male and female students in the elementary stage. The study used the descriptive approach and developed the self-regulation scale as an instrument to collect data. The content validity and reliability of the instrument were ensured using the Cronbach Alpha and repetition methods. The results showed that there were statistically significant differences in the level of self-regulation among those with learning disabilities due to the gender variable in favor of males, and to the school grade variable in favor of the second primary grade.

Keywords: *self-regulation, learning difficulties, english language, elementary stage.*

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SELFREGULATIONAMONGSTUDENTSWITHLEARNINGDISABILITIESINENGLISHLANGUAGEANDITSRELATIONSHIPTOSOMEVARIABLES

Strictly as per the compliance and regulations of:

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I. Introduction

Students with learning disabilities need to learn thinking skills to adapt to new circumstances around them, and to think in new innovative ways to deal effectively with their surroundings. This requires them to learn the skill of cognitive flexibility in thinking, as cognitive flexibility is the equivalent of adapting to new educational circumstances and situations by reducing them, comparing them with old experiences, simplifying the complex ones, and looking at the familiar in it as familiar and ordinary. Students adapt to these conditions in a routine way, while their reality requires them to deal with the complex ones without simplification and to look at them in an unfamiliar and ordinary way (Sweid, 2013).

As a result of the increase in options required by the skill of cognitive flexibility, opinions differed in their view of cognitive flexibility according to the different theoretical backgrounds. Al-Atoum (2017) indicated that cognitive flexibility is an important component of creative thinking and indicates the automatic cognitive state by changing the situation or its characteristics. This means the ability to produce a variety of ideas about a specific problem or situation and the shift from a certain type of thinking to another when responding to a stimulus that challenges the individual's thinking. Cognitive flexibility has two forms. The first is adaptive flexibility, which refers to the ability of the individual in changing the state

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of mind through which a solution to a specific problem is seen. The second is automatic flexibility that indicates the speed of an individual to produce the largest possible number of different types of ideas that are related to a specific situation (Amani, Fadaei, Tavakoli, M., Shiri, & Shiri, 2018).

Accordingly, self-regulation refers to the individual's ability to organize the use of skills to achieve goals through understanding the individual's viewpoint and identifying his qualities that help achieve goals. This is done by clearly defining the individual's goals through self-monitoring, evaluation, and promotion (Youssef & Wahba, 2021).

Therefore, we conclude that the existence of self-organization is necessary for students with learning disabilities because the student at this stage needs such skills. The purpose of the current study is to identify the level of self-organization of students with learning disabilities in English language and its relationship to some variables.

a) Research Questions

The present study seeks to give answers to the following research questions:

1. What is the level of self-organization among students with learning disabilities in Irbid Governorate?
2. Does the level of self-organization differ among students with LDs in English language in Irbid Governorate according to gender and school grade?

b) Significance of the Study

The theoretical significance of this study appears in identifying the relationship between cognitive flexibility and self-organization among students with learning disabilities. The self-organization skill would contribute to increasing students' awareness of what is going on around them and increasing the adequacy of their mental ability in dealing with situations, as well as helping them to develop positive trends towards classroom experiences and about the school. This will also help them solve their problems, which increases the vitality and activity of students in organizing situations and planning them. In light of the theoretical significance, the current study will be useful to those in

charge of the educational process to realize the cognitive flexibility that students with learning disabilities enjoy and the ability to organize themselves (Cartwright, Marshall, Huemer, & Payne, 2019).

The practical significance of this study appears in helping those in charge of the educational process in planning for curriculum development and developing advanced teaching methods by introducing a measure of self-organization.

c) Delimitations of the Study

The results of this study are limited to the sample, as it was applied to students with learning disabilities in English language in schools within the Directorate of Education in Irbid Governorate in the first semester of the academic year 2020/2021. The generalization of the results of this study limits the extent to which the study sample represents its community, the procedures for applying the study tools, and the availability of acceptable standards of validity and reliability. The results are also limited to the accuracy of the response of the study sample members and their seriousness in responding to the scale used in the study.

d) Definition of Operational Terms

The present study included many terms, which can be defined as follows:

Self-regulation: Bandy and Moore (2010) define it as "the ability of an individual to regulate and control the conscious and subconscious processes that he uses in his responses to various situations in a way that helps him overcome disappointments and failures, and achieve his goals. Is defined procedurally as the degree obtained by the student on the Self-regulation Scale prepared for this study.

Students with learning disabilities: Those who have disorders in one or more of the basic psychological processes, which include understanding of written or spoken language and their use.

II. Literature Review

Self-regulation is one of the important variables that help the individual lead a high-quality life. Students who possess high levels of cognitive flexibility are more able to succeed and find effective solutions to the social, academic, and behavioral problems they face inside and outside the classroom (Periáñez, Lubrini, García-Gutiérrez, & Ríos-Lago, 2021). Self-regulation positively affects the individual's ability to adapt to internal and external sources of psychological stress, in addition to its positive impact on the individual's mental and physical health, and it also plays an important role in social interaction with others (Koesten, Schrodt & Ford, 2009).

Moreover, Self-regulation helps students to provide automatic responses to new problems and situations, and to deal with the presented academic situations and tasks, since it helps them in the production of new and multiple ideas and alternatives (Miconi, Moscardino, Altoè, & Salcuni, 2019.).

a) Previous Studies

Al-Ramamneh (2019) aimed to reveal the level of possession of self-regulation of students with learning difficulties and its relationship with academic achievement from the perspective of their teachers. In addition, to achieve that the researcher designed a valid and reliable measure to reveal the level of possession of self-regulation of students learning difficulties, which consisted of 38 paragraphs and was randomly distributed to teachers of learning difficulties. The sample of this study consisted of 30 teachers, 15 males, and 15 females from the academic year of 2017-2018. The results of the study show that the level to which students with Learning Disabilities possess planning skills and setting goals comes at a low level, followed by self-monitoring and self-evaluation at the intermediate level, while the level of self-promotion and control of external stimuli is high. The results also show that females outperform males on all dimensions and the total score of the measure.

Al-Muqham (2019) aimed to identify the effectiveness of modeling techniques in improving the self-regulation skills of female students with learning disabilities. The sample of this study consisted of 13 female students with learning disabilities in learning disabilities programs in Shaqra City, Saudi Arabia aged between 9 – 11 years old. They were divided into an experimental group of 7 students, with an average age of 9,859, and a control group of 6 students with an average age of 10 years old. The researcher used picture modeling, imaginative modeling, story modeling, concurrent modeling, and live modeling. This study consisted of 22 sessions and the result showed the effectiveness of modeling techniques to improve the self-regulation skills of female pupils with learning disabilities.

Sezgin (2020) examined the direct and indirect relationships of children's self-regulation skills and their higher-order cognitive skills of cognitive flexibility and abstraction skills with their early academic competencies. The sample of the study consisted of 185 preschool children aged between 60 – 72 months attending educational institutions in the central province of Bursa, Turkey. Effortful control and behavior regulation were evaluated to determine the children's self-regulation skills, and the data were obtained were processed at the end of the second semester of the 2018-2019 academic year. The result of the study determined that the self-regulation skills of effortful control and behavior regulation predicted early academic skills and attitudes, and it found a statistically significant relationship of cognitive flexibility and

abstraction skills with early academic success scale scores.

III. Research Methodology

a) Population and Sample

The study population consisted of all students with learning disabilities in English language in schools within the Education Directorate in Irbid Governorate, and their number was (800) students, for the academic year 2020/2021. The study sample consisted of (400) students, who were chosen randomly, and they were distributed according to gender and school grade as shown in Table (1).

Table 1: Distribution of study sample according to gender and grade

Grade	Gender		Total
	Number	Percentage	
Second grade	65	65	130
Third grade	65	65	130
Fourth grade	60	60	120
Total	190	190	380

b) Research Instrument

Self-regulation scale

The researcher developed the Self-Regulation Scale by reviewing the literature and previous studies related to self-regulation, selecting statements from those standards, and reformulating them in line with the objectives of the current study and its new environment.

The validity of the instrument

The validity of the instrument was verified by presenting it in its initial form to a group of experienced and competent judges, to identify the indications of the apparent validity of the content of the instrument to suit the purposes of the study. The judges followed the following criteria: the appropriateness of the statement to the scale, the integrity of the wording of the statements, and the extent of clarity of meaning from a linguistic point of view. The proposed amendments agreed upon (80%) of the judges were taken into account.

To extract the construct validity indication of the instrument, the correlation coefficients were extracted for the statements of the instrument. The instrument was applied to an exploratory sample from outside the study sample consisting of (50) male and female students. The total score and the score on each statement and its correlation with the dimension to which it belongs were calculated. The correlation coefficients for the scores on the statements of the instrument as a whole ranged between (0.31-0.65), and with the dimension (0.32-0.63) as shown in the following table.

Table 2: Correlation coefficients between scores on the statements, the overall score, and the dimensions of the self-regulation scale

dimension	Statement No.	P-value with the dimension	P-value with the instrument	dimension	Statement No.	P-value with the dimension	P-value with the instrument	dimension	Statement No.	P-value with the dimension	P-value with the instrument
Setting and identifying goals	1	**.32***	**.31***		22	.38*	.51*		43	.38*	.45*
	2	.49*	.40*		23	.32*	.30*		44	.52*	.58*
	3	.49*	.41*		24	.40*	.40*		45	**.31***	.35*
	4	**.63***	**.65***		25	.36*	.38*		47	.54*	.46*
	5	.45*	.31*		26	.39*	.35*		47	.32*	.37*
	6	.54*	.44*		27	.36*	.40*		48	.35*	.39*
	7	.41*	.36*		28	.37*	.31*		49	.44*	.41*
	8	.36*	.33*		29	.35*	**.30***		50	.31*	.34*
	9	.34*	.35*		30	.36*	.34*		52	.42*	.48*

	10	.35*	.37*		31	.39*	.35*		52	.48*	.40*
	11	**.31***	.33*		32	.31*	.38*		54	.41*	.42*
	12	.38*	**.30***		33	.51*	.37*		54	.58*	.59*
	13	.46*	.47*		34	.40*	.32*		55	.35*	.36*
	14	.42*	.46*		36	.49*	.51*		56	.46*	.51*
	15	.57*	.53*	Evaluation and self-control	36	.44*	.43*		57	.37*	.31*
Self-monitoring and observation	16	.46*	.35*		37	.35*	.36*	Self-response	58	.56*	.39*
	17	.56*	.43*		38	.37*	.36*		59	.47*	.36*
	18	.44*	.34*		39	.35*	.35*		60	.56*	.35*
	19	.38*	.38*		40	.37*	.36*		61	.61*	.54*
	20	.37*	.34*		41	.39*	.44*		62	.43*	.39*
	21	.42*	.46*		41	.48*	.44*		62	.52*	.46*

* Statistically significant at (0.05).

It should be noted that all correlation coefficients were of acceptable scores and statistically significant, and therefore none of these statements was omitted.

Table 3: Correlation coefficients between dimensions and the overall score

Dimension	Setting and identifying goals	Self-monitoring and observation	Evaluation and self-control	Self-response	Overall score
Setting and identifying goals	1				
Self-monitoring and observation	.353*	1			
Evaluation and self-control	.468*	.522*	1		
Self-response	.502*	.465*	.487*	1	
Overall score	.750*	.730*	.827*	.785*	1

* Statistically significant at (0.05).

c) Reliability of the instrument

The reliability of the self-regulation scale was verified by following two methods. The test-retest method by applying the instrument to an exploratory sample of 61 students from outside the study sample, and re-applying the scale to the same group two weeks after the first application. The Pearson correlation coefficient was calculated between the scores of the two applications. The overall stability coefficient was (0.88), which is a high and acceptable reliability coefficient for application, and Table (4) shows the stability coefficients for the scale fields and the total score.

The second method was the internal consistency method using the Cronbach alpha equation. The method was applied to the sample of secondary school students in Irbid city. The overall stability coefficient was (0.87), which is a high and acceptable reliability coefficient for the application.

Table 4: Reliability coefficients for the Self-regulation scale using test re-test and Cronbach's alpha

Dimension	Cronbach's alpha	test retest
Setting and identifying goals	0.88	0.88
Self-monitoring and observation	0.88	0.85
Evaluation and self-control	0.87	0.88
Self-response	0.89	0.88
Overall score	0.88	0.87

IV. Findings and Discussion

First: results of the first question

To answer this question, the mean scores and standard deviations of the level of self-regulation of students with learning disabilities in Irbid city were extracted as illustrated in the following table.

Table 5: The mean scores and standard deviations of the dimensions of the level of self-regulation of students with LDs arranged in descending order according to the mean scores

Rank	No.	dimension	Means score	Standard deviation	level
1	1	Setting and identifying goals	3.74	.410	High
2	4	Self-response	3.59	.503	Medium
3	3	Evaluation and self-control	3.39	.391	Medium
4	2	Self-monitoring and observation	3.18	.310	Medium
		Total	3.45	.307	Medium

Table (5) shows that the mean scores of the dimensions of self-regulation ranged between (3.18-3.74). Setting goals came in the first place with a mean score of (3.74) and a high level. The self-response came second with a mean score of (3.59) and a medium level. The evaluation and self-judgment dimension came third with a mean score of (3.39) and a medium level. The self-observation dimension came in the last place, with a mean score of (3.18) and a medium level. The total mean score of the level of self-regulation as a whole was (3.45) and with a medium level.

This result could be attributed to the inclusion of the skill of self-regulation into higher skills and the need for training and practice to master this skill. Since the official school curriculum is concerned with developing the cognitive aspects more than it is concerned with the development of personality, it is natural that these skills decrease among students. The results also could be due to the nature of the traditional school and family upbringing processes that are practiced on children, which hinder the high levels of self-regulation to high levels. The skill of self-regulation needs training on freedom and independence in expressing opinions, and assigning the students various tasks to enhance their self-confidence, and accustom them to organizing tasks and duties, face diverse situations, and enable them to assume responsibility and the ability to make decisions.

Second: results of the second question

To answer the second question, the mean scores and standard deviations of the level of self-regulation of students with LDs in Irbid city were extracted according to the variables of gender and school grade as shown in Table (6).

Table 6: The mean scores and standard deviations of the level of self-regulation of students with LDs according to gender and school grade

Dimension	Grade	Male			Female			Total		
		Mean score	St. Dev	No.	Mean score	St. Dev	No.	Mean score	St. Dev	No.
Setting and identifying goals	2nd grade	3.68	.325	64	3.65	.432	65	3.68	.381	129
	3rd gradr	3.90	.461	59	3.74	.349	63	3.81	.410	122
	4th grade	3.67	.408	61	3.73	.451	68	3.76	.429	129
	Total	3.79	.415	184	3.70	.412	196	3.75	.410	380
Self-monitoring and observation	2nd grade	3.16	.259	64	3.24	.235	65	3.15	.245	129
	3rd gradr	3.25	.355	59	3.13	.253	63	3.18	.306	122
	4th grade	3.33	.344	61	3.29	.395	68	3.21	.370	129
	Total	3.22	.321	184	3.16	.300	196	3.18	.310	380
Evaluation and self-control	2nd grade	3.36	.324	64	3.32	.325	65	3.33	.324	129
	3rd gradr	3.46	.348	59	3.25	.239	63	3.34	.311	122
	4th grade	3.58	.509	61	3.46	.476	68	3.52	.493	129
	Total	3.46	.408	184	3.34	.366	196	3.39	.391	380
Self-response	2nd	3.44	.331	64	3.44	.523	65	3.45	.444	129

	grade								
	3rd gradr	3.64	.512	59	3.63	.562	63	3.64	.534	122
	4th grade	3.85	.569	61	3.47	.374	68	3.70	.497	129
	Total	3.64	.534	184	3.54	.499	196	3.59	.504	380
Total	2nd grade	3.40	.213	64	3.36	.278	65	3.39	.254	129
	3rd gradr	3.55	.301	59	3.42	.269	63	3.47	.290	122
	4th grade	3.48	.366	61	3.57	.356	68	3.51	.359	129
	Total	3.52	.306	184	3.41	.303	196	3.45	.308	380

Table (6) shows an apparent variation in the mean scores and standard deviations of the level of self-regulation among elementary school students in Irbid city due to the different categories of the variables of gender and grade school. To demonstrate the significance of the statistical differences between the mean scores, the two-way ANOVA analysis of variance was used as shown in Table (7).

Table 7: The two-way ANOVA analysis of the effect of gender and grade on the dimensions of self-regulation among the sample of the study

Source of variance	Dimension	Sum of squares	Freedom value	Mean square	F value	Sig.
Gender	Setting and identifying goals	.768	1	.768	4.687	.032
	Self-monitoring and observation	.366	1	.366	3.824	.052
	Evaluation and self-control	1.513	1	1.513	10.574	.001
	Self-response	.792	1	.792	3.292	.070
Grade	Setting and identifying goals	1.591	2	.796	4.861	.008
	Self-monitoring and observation	.216	2	.108	1.129	.325
	Evaluation and self-control	2.769	2	1.386	9.684	.000
	Self-response	5.039	2	2.515	10.469	.000
Error	Setting and identifying goals	64.794	396	.164		
	Self-monitoring and observation	37.789	396	.095		
	Evaluation and self-control	56.622	396	.143		
	Self-response	95.106	396	.240		
Total	Setting and identifying goals	67.138	399			
	Self-monitoring and observation	38.375	399			
	Evaluation and self-control	60.975	399			
	Self-response	100.942	399			

Table (7) shows the presence of statistically significant differences due to the effect of gender in the dimensions of setting and identifying goals, evaluation, and self-judgment, and the differences came in favor of males, while no differences appeared in the rest of the dimensions. The table also shows the presence of statistically significant differences attributed to the effect of the school grade in all dimensions except for the dimension of self-monitoring and observation. To show the statistically significant differences between the mean scores, the Scheffe compression was used in as shown in Table (8).

Table 8: The Scheffe analysis for the effect of the school grade on self-regulation

Dimension	Grade	Mean score	2nd grade	3rd grade	4th grade
Setting and identifying goals	2nd grade	3.68			
	3rd grade	3.83	.15*		
	4th grade	3.76	.08	.07	
Self-monitoring and observation	2nd grade	3.34			
	3rd grade	3.35	.01		
	4th grade	3.52	.18*	.18*	
Self-response	2nd grade	3.45			
	3rd grade	3.64	.19*		
	4th grade	3.72	.26*	.07	
The total	2nd grade	3.39			
	3rd grade	3.48	.08		
	4th grade	3.53	.14*	.06	

* Statistically significant at (0.05).

It can be seen from Table (9) the existence of statistically significant differences due to the effect of the school grade between the third and second grades. The differences came in favor of the third grade in the dimension of setting and identifying goals. The table also shows the presence of statistically significant differences due to the effect of the school grade between the fourth grade on the one hand and each of the second and third grades on the other hand. The differences came in favor of the fourth grade in the dimension of evaluation and self-control. There were statistically significant differences between the second grade on the one hand and each of the third and fourth grades on the other hand, and the differences came in favor of both the second and the third in the self-response dimension. There were also statistically significant differences between the fourth grade and the second grade, and the differences came in favor of the fourth grade in the self-regulation scale in general.

These results could be attributed to the fact that the Jordanian society is dominated by many social and cultural customs and traditions that pay great attention to males, depend on them in all areas of life and hold them responsible for many things, which would make males more experienced in various areas of life. Males in society seem to face different problems and situations and are more able to define their goals, follow them, evaluate them, and respond to all developments that happen in an orderly and positive manner. On the other hand, females are less open to experiences due to the nature of society.

V. Recommendations

Based on these results, the study recommends paying attention to setting up various programs to develop the skills of self-regulation among students by educational officials. The study also recommends counselors and teachers take more interest in educational activities that develop self-regulation skills for students with learning disabilities.

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