

## Self-learning Strategies and their Relationship with the Development of Motivation and Self-esteem among a Sample of Students at King AbdulAziz University (Descriptive and Comparative Study between Ordinary and Talented Students)

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**Abstract:** The study aimed to identify the nature of the correlation (if any) between self-learning strategies, motivation and self-esteem on a sample of students at King AbdulAziz University comprising (280) male and female students in the preparatory year or in the following colleges (Education - Science - Computer Science - Arts-Applied Medical Sciences, Management and Economics). A list of self-learning strategies prepared by the researchers was applied on them, as well as both scales of motivation and self-esteem. The major findings of the study were as follows: There were statistically significant differences between some student's mean ratings on the items of the dimensions of the list of self-learning strategies based on gender (male, female) in favor of females, and the student's academic level (preparatory, advanced) in favor of the preparatory. There were statistically significant differences between all mean ratings on the items of the dimensions of the list of self-learning strategies based on student status (ordinary- talented) in favor of talented students. There was a high and direct correlation between the student's mean ratings on the items of the dimensions of cognitive strategy and the items of both self-esteem and motivation scales. There was a high and direct correlation between all mean ratings on the items of the dimensions of the learning list and mean ratings on self-esteem and motivation among the students of the preparatory year and the advanced levels. The correlation coefficients varied between the student's mean ratings on the items of the dimensions of the self-learning list and their mean ratings on the items of both self-esteem and motivation scales according to student status (normal, talented).

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### 1. Introduction:

Learning and instruction methods differ clearly and generally in universities and institutions of higher education, swinging between traditional and modern ones in order to help students acquire knowledge and possess personal skills. A university student strives hard to get the highest ratings in the study subjects in order to excel over his peers depending on a number of personal and psychological variables, related to motivation and self-esteem.

Therefore, we find that students who have high motivation hold positive beliefs about their ability to learn and they have the greatest readiness to learn through their use of self-learning strategies, making them work harder as they try to combine new information with past information and experiences, and look for acceptable reasons, logical justifications and ideas, and resist difficult situations longer. Such students always endeavor to reach a high level of understanding of the subject and because of their motivation and self-esteem, they are more focused and attentive to the parts of the subject and to the demonstration steps (Albatina *et al.*, 2007, Berthoff, 2007, Oakland, 2008, Babikr, 2010).

Self-learning style in higher education institutions (or university education) plays an important role in the development of motivation and raising of self-esteem among students, in spite of different performance levels, where Case (2006, pp.1-19) sees that teaching undergraduate students using effective learning styles such as the method of self-learning together with a variety of strategies, develop the student mentality at academic and personal levels, (Pajares, 2002, Gourgey, 2010).

### Problem of the Study:

The current study is trying to investigate the nature of the correlation (if any) between the self-learning strategies and the motivation and self-esteem among a sample of students at King AbdulAziz University. The study problem can be highlighted more clearly through the following questions:

- Are there significant differences between the mean ratings on the use of self-learning strategies by students of King AbdulAziz University pursuant to the study variables: sex (male - female), academic level (preparatory - Advanced), and the type of student (normal – brilliant)?

- Is there a statistically significant correlation between the mean ratings on the use of self-learning strategies by King Abdul-Aziz University students and their mean ratings on the levels of self-esteem and motivation they have?
- Does the nature of the correlation (if any) differ between the mean ratings on the use of self-learning strategies by King Abdul-Aziz University students and their mean ratings on their levels of self-esteem and motivation based on different gender of the student (male - female), the academic level of the student (preparatory - Advanced), and the type of student (Normal-brilliant)?

#### **The Importance of the Study:**

The importance of the study is as follows

- It sheds light on the role played by self-learning strategies in improving the performance of students at the university and that the student should become the center of the educational process.
- It draws the attention of workers to the development of university education through the use of self-learning strategies because of its great importance in the development of university student's personality.

#### **Objectives of the Study:**

The present study aims to:

\* Show the importance of the application of self-learning strategies in university instruction because of the benefits that would accrue to the student's scientific and practical personality.

\* To disclose the nature of the correlation (if any) between the self-learning strategies and all levels of motivation and self-esteem among a sample of students at King AbdulAziz University.

#### **Definition of the Study Terms**

**Self-learning:** A set of strategies provided by the teacher to his students as the students deal directly with their abilities and potential energies. The self-learning includes a set of dimensions, namely, (cognitive strategy, self-regulation, metacognitive strategy, and self-efficacy (Qutamy, 1999, Hayes & Allinson, 2009).

- **Self-awareness**

The current study adopts Pajres' definition of self-awareness as an individual's ability to make judgments on their abilities and potentials to organize ideas and business and to implement them properly in specific educational and achievement situations (Pajres, 2002).

- **Cognitive Strategy:** Procedurally defined as an individual's ability to perceive what they have learned and work to provide some new ideas associated with the study subject and the exclusion of unrelated ideas.

#### **Metacognition**

- It is procedurally defined as the individual's exact perception of learning tasks and the required skills, knowledge and the ability to do the right conclusions and how to use the cognitive strategy efficiently and consistently (Jeana, 2007).
- **Self-efficacy:** it's procedurally defined in the current study as the student's awareness of his cognitive operations and methods of controlling them, and to use them to absorb and understand any content or subject he wants to learn (Zimmerman, 2002).
- **Personal Knowledge:** Procedurally defined as the nature of information possessed by the individual about how learning occurs in general by means of the acquisition of knowledge and processing of information by his own way (Zimmerman & Martinez, 2004•Paris, 2008).
- **Outstanding student:** it means in this study, the student who achieves excellent grade or a cumulative point average (4.5-5.00)
- **Motivation:** Procedurally defined as the persistence of students in learning and accomplishing difficult tasks as well as excelling in their work and the quest to satisfy their learning wishes.

#### **The Study Limits**

- **Spatial limits:** The current study was applied at King AbdulAziz University (male and female students' sections).
- **Human Limits:** the current study was applied to a random sample of students in the preparatory year and students in the following colleges (Education - Science - Computer Science and Information Technology - Arts and Humanities - Applied Medical Sciences - Management and Economics).
- **Time Limits:** The study was applied during the second semester of the academic year 1432/1433 AH.

#### **Theoretical Framework and Previous Studies:**

Self-learning style is one of the teaching methods which have received considerable attention by educators because it achieves for each learner what is commensurate with his abilities and speed in learning and takes into account the individual differences among learners and provokes their motivation for learning and motivates them to infer information on their own (Pinrtich, & DeGroot, 2008). The obtaining of skills needs practicing and training and not just knowledge of the information. And the student's behavior depends on the quality of the program and the information he receives, as the teaching methods which convey such information as well as experiences

he is going through, all of this is one of the factors that lead to the formation of cognitive development for him in addition to the experiences acquired through the environment surrounding him.

#### **Self-learning:**

Some recent studies agree (Zimmerman & Martinez, 2004, Evans, & Honour, 2008,) on the definition of self-learning as a learning activity performed by the self-learner through self-reliance in the acquisition of information and how to address them. It increases confidence in his abilities in the learning process in order to develop the capacity and inner preparedness in accordance with his own strengths and inclinations a thing that enhances independence of his character and his ability to make the decision no matter how it is (positive or negative). The learner bears the responsibility through the use of multiple methods to help him acquire knowledge, skills and values that hone his character and effectively integrate it with the community. So, "Pavlov" in his view of self-learning, believes that an individual can change for the better if he acquires the appropriate conditions to make this change. Self-learning empowers an individual to teach himself, according to their skills and potentials, and in consistent with their inclinations, interests and needs, as each learner achieves what is commensurate with his abilities and speed of learning based on self motivation, which helps him to possess self-evaluation as this system allows the learner to know the weaknesses and work on self - treatment or with the help of others (Lapan, 2002; Zimmerman & Martinez, 2004 Paris, 2008; Algharayba, 2009).

#### **Self-learning and Self-esteem:**

Self-esteem is defined as "judgement adopted by the person about himself, and personal style to judge many life situations, where he accepts judgment without objection or grievance because it stems from his feelings and emotions toward the events, be it positively or negatively. It is a self-assessment of personal qualities that appear in life situations. Gourgey (2010) believes that self-realization is the primary motivation in achieving the individual's personality, as the self-belief of the learner about his skills, knowledge and abilities as well as the possibility of attaining high achievement rank compared with others is nothing but an attempt to develop his potential to reach the proper level of psychological development, which leads to the formation of his accepted attitudes toward himself as well as confidence and pride in his reactions and conclusions (Berthoff, 2007).

The nature of the strategies used in self-learning such as some behaviors (confirmation, flexibility, decisiveness in his decision-making, gaining respect from others) help an individual to

achieve the expected and required goals, and optimize his role in the learning process as his role is no longer limited to listening or to the explanation of the teacher but he has taken the responsibility to educate himself, so he shall voluntarily endeavor to achieve values and personal skills much better than the traditional academic achievement and with broader impact (Winne, 1996, Jeana Kriewaldt, 2007).

#### **Motivation and Self-learning:**

Motivation plays an important role in individual's behavior, and affects the extent of their consistency and feelings of self-satisfaction, feeling of value and self-respect. The feeling of self-satisfaction will happen as a result of what the self could become - by means of the achievement - capable of creativity and belief in its potentials, abilities and capacities, and to attain the levels of excellence, achievement and benefit from capabilities, abilities and preparations until an individual acquires the maximum experience. So, motivation is considered to be one of the important aspects of the personality which is so effective in the utilization of creative potentials (Al-Hosani, 2010).

Modern scientific studies (2004 Hill, Lee 2005, Applegate, 2008, Chiang, 2008) show the presence of differences between individuals of the same age in many aspects such as intelligence, ability of achievement, understanding and cognition as well as differences in inclinations, attitudes, interests, and motivation in acquiring knowledge. And here emerges the role of self-learning which allows the learners to meet their personal needs as it gives them freedom to use the time and allows every learner to determine the appropriate track in his endeavor to achieve prescribed goals. It also gives the learner the opportunity to study in small or large groups or to study separately in addition to the accuracy of self-speed (Douglas, 2003, Stage, & Simmons, 2005, Marton, & Salijo, 2006, Dowdin (2007).

#### **Previous Studies:**

Results of the study of Gracia and Pintrich (1991) showed apparent differences in motivation and self-esteem, where self-esteem relates to the metacognitive strategies and does not relate to the anxiety of examination and achievement. Self-orientation is associated with metacognitive strategies and the inclination toward the goal and the feeling of independence.

Wolters' Study (1998): The findings of this study showed that the internal regulation was a positive forecaster and an indicator of elaboration, analytical thinking, and metacognitive strategies. As the students who have internal motivation tend to use self-learning strategies to increase their efficiency, values and desire to carry out tasks.

Douglas' Study (2003): This study demonstrated the effectiveness of the self-learning-based programs in the development of the student's academic and personal skills by means of the development of internal and external motivation.

Evans' Study (2008): It indicated the effectiveness of self-learning strategies - based on note taking- in the development of motivation, metacognitive skills, and cognitive strategies as well as upgrading of self-efficacy.

El-Hindi's Study (2009): The results showed the connection of the level of mathematical ability with the student's performance. The more the self-efficacy increases, the more the self-assessment of the results would increase.

**Watban's Study (2010):** The results showed the superiority of students with high self-efficacy over students with low self-efficacy in skills of goal specification, setting plans, and control and observation skills as well as skills of self-evaluation of learning.

Commander and Valeri's Study (2010): This study concluded that the addition of internet technology represents a positive factor in generating self-learning for public education students and in getting a great deal of benefit/advantage.

**Abdul-Aal's Study (2010):** The findings of this study pointed to personal factors including family factors that cause the reduction of inner efficacy and self-motivation of students of the preliminary year leading to the lowering of the level of student's aspiration for learning.

Ammar's Study (2010): The study concluded that the effective use of self-learning based on expert computer systems in teaching geography would raise the level of knowledge achievement, the development of analytical thinking and economic values for the female students of the first year secondary school.

Al-Olwan's Study (2011): The results showed that the students used self-learning strategies with no differences between the two genders in the degree of importance except for regulation strategy which was in favor of the females. The results also showed a strong positive relation between the feeling of the importance of the study strategy and practicing of this strategy.

Al-Khawalda's Study (2012): The results showed that the secondary school students in Jarsh governarate (Jordan) moderately acquire metacognitive thinking skills. They also showed the presence of statistically significant difference at the level of ( $\alpha \leq 0,05$ ) in the student acquisition of metacognitive thinking attributed to the achievement variable.

#### **Study Procedure:**

#### **Study Sample:**

The study sample is made of (280) students (male and female) at the preliminary year and advanced stages as well as the students of the previously mentioned colleges. The following table shows the sample distribution according to the study variables.

Table (1): Sample distribution according to the study variables

variable		Number	Percentage (%)	Total
<b>Gender</b>	<b>Males</b>	137	48.9	<b>280</b>
	<b>Female</b>	143	51.1	
Education level	Preparatory	126	45.00	<b>280</b>
	Advanced	154	55.00	
Type of student	Ordinary	157	56.1	<b>280</b>
	Brilliant	123	43.9	

## **2. Study Methodology:**

The current study adopted the descriptive methodology (comparative) in attempting to explore the nature of the connotation (if any) between self-learning strategies and levels of motivation and self-esteem among the sample of male and female students at King Abdul-Aziz University.

#### **Study Tools:**

The study tools consist of the following:

**First:** A list of the ratings of the self-learning strategies (**prepared by the researchers**): a number of Arabic and foreign studies have been consulted to attain the list's items.

#### **List Description:**

The study consisted of 70 items or articles distributed on a number of dimensions based on the use of self-learning strategies and such dimensions are (cognitive strategies, self-regulation, metacognition strategy, general self-efficacy, self-awareness, and their reflection on the study skills.

#### **Study Tool Validity**

**1- External Validity:** First the researchers reviewed the list after putting it in its initial form by using a checklist included the tool dimension, its title, its items, the logical chronology of the terms, and their association with each other. Four columns were put

opposite these dimensions which include four judgement scores (1-4) as long as they are quite appropriate in terms of research aspect.

Then the list and the form of arbitration were sent to eight specialists in education, psychology and special education to check the validity of the content, and after collecting the arbitrators' ratings, a percentage of the agreement between their views was calculated where the ratio reached (78.59%), hence the list was revised in the light of the views and ratings of the arbitrators and then an appropriate modification and deletion process was conducted where the total number of the list's items were (70) items distributed over the sub-dimensions, (15) items for each dimension with the exception of the self-consciousness dimension which got (10) items.

**Self-validity:** To make sure of self-validity the tool was reapplied to the same group which the first application was carried out, so the relationship was close between stability and self-validity through the reliability coefficients that were previously drawn and then the square root was calculated for each coefficient and the result was as follows:

- The list as a whole: The square root of the reliability coefficient (0.96) was (0.98).
- Cognitive strategy dimension: The square root of the reliability coefficient (0.93) was (0.96).
- Self-regulation Dimension: The square root of the reliability coefficient (0.94) was (0.97).
- Metacognitive strategies: The square root of the reliability coefficient (0.93) was (0.96).
- The dimension of self-regulation: The square root of the reliability coefficient (0.94) was (0.97).
- Cognitive Strategy Dimension: The square root of the reliability coefficient (0.93) was (0.96).
- Self-efficacy Dimension: The square root of the reliability coefficient (0.92) was (0.96).
- The dimension of self-awareness and its reflection on study skills: the square root of the reliability coefficient (0.95) was (0.97).

#### **Reliability of the List:**

The researchers used the following methods to calculate the reliability of the study tool:

#### **1- Cronbach alpha Reliability Coefficient:**

The researchers applied the tool on a random sample of students at King Abdulaziz University amounted to (90) students from non-core sample application, and by computing the Cronbach's alpha coefficient for the whole list of (70) items, the reliability coefficient reached (0.96). The consistency alpha coefficients for the dimensions of the list were as follows:

(Cognitive strategies: the reliability coefficient reached (0.93), self-regulation: the reliability coefficient totaled (0.94), the metacognitive strategy: the reliability coefficient amounted to (0.93), general

self-efficacy: the reliability coefficient was (0.92), self-awareness and its reflection on the study skills: the reliability coefficient totaled (0.95).

**2 - Reliability Coefficient through Split-half:** By halving the list (35 items in each half), the reliability coefficients of Cronbach's alpha reached (0.97) for the first half and (0.97) for the second half with Pearson correlation of (0.87) between the two halves. As for the reliability of Cronbach's alpha coefficients by the split-half of the dimensions of the list, they were as the follows:

- **Dimension of Cognitive Strategies:** the first half was of (8) items and its reliability coefficient reached (0.88), while the second half consisted of (7) items and the reliability coefficient reached (0.86), and Pearson correlation coefficient for the two halves reached (0.88).

- **Self-regulation Dimension:** The first half was of (8) items and its reliability coefficient reached (0.89), while the second half was of (7) items and the reliability coefficient amounted to (0.88), and Pearson correlation coefficient for the two halves reached (0.84).

- **Dimension of Metacognitive Strategy:** The first half consisted of (8) items and its reliability coefficient reached (0.89) while the second half was of (7) items and its reliability coefficient amounted to (0.89), and Pearson correlation coefficient for the two halves reached (0.80).

- **The General Self-efficacy Dimension:** The first half was (8) items and its reliability coefficient reached (0.83), while the second half was made up of (7) items and the reliability coefficient reached (0.88), and Pearson correlation coefficient for the two halves reached (0.87).

- **The Self-awareness Dimension and its Reflection on Study Skills:** The first half was of (5) items and its reliability coefficient reached (0.87) while the second half consisted of (5) items, the reliability coefficient amounted to (0.85), and Pearson correlation coefficient for the two halves reached (0.91).

#### **3- Objectivity Reliability Coefficient:**

Objectivity reliability coefficient was calculated by extracting Pearson correlation coefficients from the ratings of two student groups (a male group: n = 51 students) and (a female group: n = 39 students), the correlation coefficient of the list as a whole has reached (0.79), and the correlation coefficients of the five dimensions were respectively, as follows: (0.72), (0.77), (0.75), (0.70), (0.77).

#### **4-Internal Consistency Reliability Coefficient:**

Pearson correlation coefficients between the the list sub-dimensions and the total score of the ratings of students of King Abdulaziz University (n = 90) ranged from (0.76-0.85), the function of all correlation coefficients was at the level of (0.01). Thus

they have a very good reliability that is fit to achieve the purposes of the present study.

#### List Correction:

After collecting the papers of the tool and classifying them in the study groups, the process of correcting papers was started within the following considerations:

The mark is calculated in the light of the rating chosen by the student represented primarily in the allocated degree thereof.

- Rating "always" for paragraph (a) given 4 (marks).
- Rating "normally" for paragraph (b) given (3 marks).
- Rating "sometimes" for paragraph (c) given (2marks).
- Rating "rarely" for paragraph (d) given (1 mark).
- Rating "never" for paragraph (e) given (zero degree)... and so on.

**Second:** the Self-esteem Scale: prepared by Rezonr (2000), translated by the Dhahran Private Schools, and it is characterized by great validity and reliability

connotations, as its validity reached 89.5% and reliability ranged from (0.91-0.93), which are indications of high validity and reliability.

**Third: The Measure of Achievement Motivation:** prepared by Kadiri (2000) and the scale is characterized by great validity and reliability where its validity was 87.9% and reliability ranged from (88.5-90.2), the indications of high validity and reliability.

#### Results and Discussion of the Study:

##### Question 1:

Are there statistically significant differences between the mean ratings on the use of self-learning strategies by King AbdulAziz University students according to the study variables: gender (male - female), academic level (preparatory - Advanced), and the type of student (normal - brilliant)?

To answer this question, the researchers used the T-Test to find out the differences between the means of the study sample ratings. The following table shows the differences among them: -

**Table (3):** T test results for the differences between the mean ratings of students at King AbdulAziz University in the use of self-learning strategies according to the variable of the student gender (n = 137 males, females n = 143) and the variable of the academic level (preparatory n = 126, n = 154 Advanced).

Tool Dimensions		Variable	Brilliant	Ordinary	T value	Variable	Brilliant	Ordinary	T value
Self-learning strategies	Cognitive strategy	Male	38.04	12.23	1.91	Preparatory	39.80	11.23	0.53
		Female	40.69	10.96	--	Advanced	39.06	12.01	--
	Self-regulation	Male	35.23	10.11	*1.99	Preparatory	34.79	**2.60	9.36
		Female	37.38	7.80	--	Advanced	37.58	--	8.61
	Metacognitive strategy	Male	0.34	7.92	42.15	Preparatory	1.15	9.01	41.69
		Female	--	8.81	42.49	Advanced	--	7.80	42.84
	General self-efficacy	Male	1.73	10.25	38.27	Preparatory	0.89	9.47	38.71
		Female	--	8.78	40.24	Advanced	--	9.63	39.73
	Self-awareness	Male	***5.19	7.28	29.99	Preparatory	0.72	6.55	32.64
		Female	--	7.18	34.48	Advanced	--	8.30	31.99
	Total Score	Male	183.65	43.04	**2.46	Preparatory	188.00	41.39	0.75
		Female	195.27	35.69	--	Advanced	191.21	38.54	--

\*\*\* Function at the level of 0.001 \*\* function at the level of 0.01 \* function at the level of 0.05

The previous table shows T-test results of the differences between the mean ratings of students according to the variable of student gender ( male - female) and the academic level variable (preparatory n = 126, advanced n = 154) on all dimensions of the list and the total score, where the results of gender variable show the presence of statistically significant differences in two dimensions only of the list dimensions in addition to the total score, also the results of the table show the presence of statistically significant differences at the level of (0.01) among the means of the total score of the male sample ratings (M = 183.65 ) and the female sample (m = 195.27 ) in favor of the mean of the female sample ratings, as for the mean ratings of the two study samples of the items of other dimensions of the tool, they did not show any statistically significant differences between them despite that the means of cognitive strategies dimensions were close to the function where T values reached (1.91). The researchers have attributed the emergence of differences in favor of females to the nature of females in terms of having the ability to organize and divide deferred school tasks so that they can easily and conveniently complete them, the study findings have coincided with the results of Alwan's study (2011), and the results of the current study contradict the results of Stage and Simmons survey study (2005).

The results of the variable of the student's academic level (preparatory, advanced) have shown a statistically significant difference between the two mean ratings of students sample of the preparatory year ( $M = 34.79$ ) and advanced students sample ( $M = 37.58$ ) in self-regulation dimension at the level of significance (0.01), where the T value reached (2.60) in favor of the mean ratings of the sample of advanced level students.

In the opinion of the researchers the reason for this is the education experience and the nature of the study skills acquired by students in the advanced stages over the student of the preparatory year. They allow them to evolve and mature knowledge and to use metacognition which contributes to the organization of their self-learning, and to build relationships with their colleagues and with the faculty staff. The findings of the current study coincided with the results of Stage & Simmons' study (2005), and Abdel Aal's study (2010).

**Table (4): Differences between the mean ratings of students at King AbdulAziz University in the use of self-learning strategies based on the variable of student type (normal  $n = 157$ , brilliant  $n = 123$ )**

Tool Dimensions		Sum	SdV	T value	
Self-learning strategies	Cognitive strategy	Brilliant	29.71	4.90	***46.23
		Ordinary	51.76	2.23	--
	Self-regulation	Brilliant	29.68	6.12	***24.98
		Ordinary	44.81	3.14	--
	Metacognitive strategy	Brilliant	35.89	4.56	***29.46
		Ordinary	50.54	3.50	--
	General self-efficacy	Brilliant	31.90	5.49	***29.89
		Ordinary	48.69	3.32	--
	Self-awareness	Brilliant	29.48	7.43	***7.75
		Ordinary	35.86	6.09	--
	<b>Total Score</b>	Brilliant	156.65	16.90	***44.66
		Ordinary	231.67	8.84	--

\*\*\* Function at the level of 0.01

The previous table contains the dimensions items of the self-learning strategies list, according to student status (normal, brilliant), and all the significant differences are at the level of (0.001) in all dimensions and the total score. The researchers attribute the emergence of these results to the differences between the ordinary and outstanding students in features that characterized the outstanding ones in terms of self-motivation, self-esteem, and motivation to use self-learning strategies. The results of the current study coincided with the study of Aloutban (2010).

#### Question 2:

Is there a statistically significant correlation between the mean ratings on the use of self-learning strategies by students at King AbdulAziz University and their mean ratings on the levels of self-esteem and motivation they have? To answer this question, Pearson correlation coefficient has been extracted, and the following table shows these results:

**Table (5): The mean ratings on the use of self-learning strategies by students of King AbdulAziz University and their mean ratings on the levels of self-esteem and motivation they have.**

Self-learning Dimensions	Self-esteem	Motivation
Cognitive strategy	**0.78	**0.80
Self-regulation	**0.73	**0.72
Metacognitive strategy	**0.76	**0.78
General self-efficacy	**0.35	**0.78
Self-awareness	**0.35	**0.31
<b>Total Score</b>	**0.80	**0.81

\*\* Function at the level of 0.01

The results contained in the previous table show a high and direct correlation with statistically significant function at the level of (0.01) between the students' mean ratings of the total score on the items of the dimensions of the list of self-learning and their

mean ratings on the items of both scales of self-esteem and motivation, as correlation coefficients reached (0.80, 0.81). The researchers attribute the reason for the presence of high correlation to the use of appropriate learning strategies which corresponds

to the nature of the individual's internal and external motivation as well as to his high self-esteem. The findings of the current study coincided with the results of the studies of Gracia and Pintrich (1991), Douglas (2003) and Ammar (2010).

### Question 3:

Does the nature of the correlation (if any) between the mean ratings on the use of self-learning

strategies by students of King AbdulAziz University differ from their mean ratings on levels of self-esteem and motivation they have pursuant to the different gender of the student (male - female), the academic level of the student (preparatory - Advanced), student status (Normal - outstanding)? The following table shows the differences among them: -

**Table (6):** Mean ratings on the use of self-learning strategies by students of King AbdulAziz University and their mean ratings on levels of self-esteem and motivation they have according to the gender of the student (male - female), academic level of students (preparatory - Advanced) and student status (ordinary - outstanding).

Dimensions of Self-learning List		Self-esteem	Motivation		Self-esteem	Motivation		Self-esteem	Motivation
Cognitive strategy	Male	**0.78	**0.81	Preparatory	**0.84	**0.85	Ordinary	-0.06	0.00
	Female	**0.81	**0.82	Advanced	**0.77	**0.78	Brilliant	**0.23	*0.19
Self-regulation	Male	**0.75	**0.77	Preparatory	**0.77	**0.77	Ordinary	0.14	0.03
	Female	**0.75	**0.71	Advanced	**0.68	**0.68	Brilliant	0.07	*0.21
Metacognitive strategy	Male	**0.72	**0.79	Preparatory	**0.84	**0.87	Ordinary	0.12	**0.23
	Female	**0.80	**0.78	Advanced	**0.70	**0.70	Brilliant	0.14	0.05
General self-efficacy	Male	**0.71	**0.77	Preparatory	**0.77	**0.79	Ordinary	0.01	*0.18
	Female	**0.79	**0.83	Advanced	**0.71	**0.78	Brilliant	0.11	*0.20
Self-awareness	Male	**0.59	**0.59	Preparatory	**0.58	**0.57	Ordinary	0.03	0.06
	Female	*0.19	0.10	Advanced	**0.23	*0.16	Brilliant	*0.31	0.15
Total score	Male	**0.80	**0.84	Preparatory	**0.85	**0.86	Ordinary	0.08	0.11
	Female	**0.84	**0.82	Advanced	**0.76	**0.77	Brilliant	0.16	0.11

\*\* Function at the level of 0.01 \* function at the level of 0.05

The previous table, containing the items of both scales of self-esteem and motivation, based on the gender of the student (male, female ) academic level of students (preparatory - Advanced) and student status (ordinary - brilliant), shows that the results related to the gender of the student confirm a high and direct correlation of statistically significant function at the level of (0.01, between the mean ratings of students on all dimensions of the study tool and the scales of self-esteem and motivation, which ranged from (0.59-0.84), except for the awareness dimension where the correlation is weak and the function was at the level of (0.05) between the mean ratings of female students on the dimension items and their mean ratings on the items of self-esteem scale (0.19).

While there was no correlation coefficient between their mean ratings on the items of the same dimension and mean ratings on the items of motivation scale. The results indicate a reflection of self-esteem and motivation in general on the use of self-learning strategies on all dimensions of the list and the total score. The findings of the study coincided with all the following studies: Wolters (1998), Evans (2008) and Al-Watban (2010).

The researchers believe that the reason for this type of correlation is because the university students in general are characterized by a positive motivation and a high self-esteem (Shaarawy, 1994). This result

coincided with the result of Aloutban's study (2010), and disagreed with El-Hindi (2009), Abdel Aal (2010).

But the results of the variable of the student's academic level (preparatory - Advanced) has proved the presence of a high and direct correlation between all the mean dimensions of the self-learning list and the means of self-esteem and motivation among the students of the preparatory year and the those of the advanced levels except for correlation coefficients associated with the means of students ratings on the self-awareness dimension where such coefficients were Medium and direct with statistical function of (0.01) for the mean ratings of the preparatory year students (0.58, 0.57), while it was weak and direct correlation with statistical function ranging from (0.01, 0.05) for the mean ratings of the students at advanced levels (0.23, 0.16).

With regard to correlation coefficients between the mean ratings of the self-learning strategies and their mean ratings of the levels of self-esteem and motivation among the (preparatory - Advanced) the results have shown that correlation coefficients associated with mean ratings of students of the preparatory year were somewhat stronger as correlation coefficients for the mean ratings of students of the preparatory year ranged from (0.57-0.87), while the correlation coefficients of the mean

ratings of advanced level students ranged from (0.16-0.68). The researchers attribute this to several reasons, including the nature of the university environment which becomes discouraging to the students in the advanced stages as they get bored and the routines used by the faculty staff (Schrow, 1994), whereas the student of preparatory year comes to the university from a secondary education environment to a new environment where he seeks to achieve his future so he comes with high motivation and self-esteem, and this result was contrary to the study of Abdel Aal (2010).

Looking at the results of the variable of student different status (ordinary - brilliant) we noticed that the correlation coefficients included in the table were weak or very weak and a large number of them did not show a statistically significant, and a very weak and an inverse correlation appeared for the first time (-0.06) between the mean ratings of ordinary students on items of cognitive strategy and mean ratings on the items of self-esteem measure, and it is noted that all correlation coefficients relating to the mean ratings of ordinary students ranged from weak to very weak and with no statistically significant except for the correlation coefficient between the mean ratings on the dimension of the metacognitive strategy (0.23) and the dimension of general self-efficacy and the motivation of these students (0.18).

The researchers attribute the weakness in the correlation among ordinary students to their mean ratings on the items of cognitive strategy dimension and the items of the self-esteem measure as well as to the metacognitive strategy and the dimension of general self-efficacy and the motivation measure. The results of the current study coincided with the results of Al-Khawaldeh's study (2012). The correlation coefficients for outstanding students are mostly coincided with the students' ratings on the items of the motivation scale, with statistical significant ranged from (0.05-0.01).

In the opinion of the researchers the reason for this is that the motivation associates with cognitive strategy and self-awareness strategy to a certain extent as the factors of motivation optimize the self-regulation process as well as the operational skills to choose appropriate strategies, and they also regulate the process of implementation and control. The findings of the current study coincided with the results of AbdulAal's study (2010).

#### Recommendations:

- \* Apply self-learning strategies in university teaching because of its benefits that would accrue to the student's personality in their academic and career life.

- Activate the role of university guidance in delivering awareness lectures to contribute to the spreading of the culture of self-learning strategies.
- Develop programs for self-development and in particular for the preparatory year students which helps them to build themselves and cope with the pressure that they may be exposed to when entering the university.

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