

Academic Self-efficacy and its Relation to Metacomprehension among the Students of Al-Balqa Applied University

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Abstract

The present study aimed to reveal the relationship between the academic self-efficacy and Metacomprehension of the students of Al-Balqa' Applied University, whose sample consisted of (902) male and female students randomly selected from the students of Al-Balqa' Applied University. The results of the study indicated an average level of academic self- efficacy among the students of Al-Balqa' Applied University, and the level of Metacomprehension was moderate. The results indicated a statistically significant positive relationship between the academic self-efficacy and Metacomprehension among the students of Al-Balqa' Applied University. The results of the study showed statistically significant differences between the levels of study (first, second and fourth), and academic self-efficacy in favor of the second year level. The results indicated that there were statistically significant differences at the level of significance ($\alpha \leq 0.05$) attributed to the effect of the college variable and for the benefit of the scientific faculties. There were no significant differences due to the effect of gender variable on academic self-efficacy. As for the Meta-comprehension, the results showed that there were no statistically significant differences at the level of significance ($\alpha = 0.05$) due to the effect of the study level variable. In addition to the existence of statistically significant differences ($\alpha = 0.05$) due to the effect of the gender variable in favor of females in Metacomprehension. In addition, there are statistically significant differences ($\alpha = 0.05$) due to the effect of the college variable in favor of the scientific colleges in Metacomprehension.

Keywords: Academic Self-efficacy, Metacomprehension, Al-Balqa' Applied University

Introduction

Beyond comprehension is considered one of the modern topics in cognitive psychology, which have received increasing attention because of its role in judging the student's performance (De Beni & Palladino, 2001), students with high beyond comprehension skills when compared to low-skilled students found that they finished reading the items with a high understanding, have the ability to examine the logical coherence of the readable text; link the current information to the previous knowledge and can implement remedial strategies when they do not understand, such as rereading, linking different parts of the paragraph, or seek to summarize it or link existing information with previous knowledge and all that does not exist in the low-skilled individuals (De Beni, Palladino, Borella & Lo Presti, 2003). The concept of beyond comprehension refers to the ability to judge the extent of learning and comprehension of the text, and to focus attention on the information that they did not learn (Thiede & Anderson, 2003; zhao & Linderholm, 2008).

The results of many studies indicate that the time taken to achieve learning goals decreases as the capacity of beyond comprehension increases and the experiences of the individual affect the judgments and assessments or reactions to the tasks of the current reading, and his knowledge of the subject affect the provisions of beyond comprehension (Dunlosky, Anderson & The raiault (2003), The de (2005) Thiede, Anderson & Thereviaull (2003). The accuracy of judgments is measured by the compatibility between individual judgments and performance in the test. Dunlosky (2008) refers to two types of accuracy: relative accuracy, it refers to: the degree to which the student's judgment is related to his performance in the tests, and the second is absolute accuracy namely: provisions relating to exaggerated; for example, if the student has ruled that he learned all the content in the text and failed the test, his confidence in the judgment is exaggerated.

Several studies such as (De Bruin, Rikers, & Schmidt, 2007; De Beni, Borella, & Carretti, 2007) have indicated that the reader during the reading has to carry out a continuous evaluation, using the strategies of regulation, which allows him to integrate sentences and form representations of texts and read back to ensure

that it is absorbed. The type of text, whether fiction or prose, affects the attention of the reader, prose texts require more attention because of their internal structure. They are more unusual and can impose more demands on the reader, and it is more difficult than fiction texts in the treatment (Rikers & Schmidt, 2005).

In contrast, narrative pieces are easier to handle because it is more known, predictability in its structure and content. Because the narrative text contains a higher degree of coherence, the reader can access information related to the causal structure of the text faster than reaching the information that does not exist. In the prose texts, treatment is based on the text, while it based on the characters in the narrative text in the case of prose texts, and on the model in narrative texts (Moore et al., 1997).

In addition, in order for the reader to understand a prose he must be able to retain information in memory while calculating the relationships between similar words and sentences so that he can represent the text. The skills beyond comprehension allow readers to observe the comprehension process by picking up reading errors or changing the reading speed depending on the content of the text (Walczyhe, 1995). Students with weak comprehension usually have misunderstandings about their reading objectives. This may be because they do not check their level of understanding of the text, nor are they aware of the strategies used to achieve their goals as readers (Rawson, Dunlosky & Thiede, 2000). Based on the above, individuals' assessment of their learning at test, the accuracy of their judgments will be high, when the relative accuracy of the provisions contrary to what is expected, then the individual thinks of possible processes that can affect the provisions. The individual will try to fully recover the goal he has sought and use in making judgments, and when he attempts to retrieve each definition, he will be able to accurately assess the quality of his memory (Anique, D. Bruin, Remy, Rikers, Henk & Schmidt, 2007).

Provisions of beyond comprehension

Processes underlying meta comprehensions Judgments

The judgments of individuals are based on two provisions (Dunlosky & Lipko, 2007; De Bruin, , Rikers, & Schmidt, 2007):

First, provisions based on the experience of the individual: experience refers to the reactions to the readers towards the tasks of reading, for example: Knowledge of the subject affects the provisions beyond comprehension. And the provisions beyond comprehension depends on knowledge of the subject and not knowledge of the text, so the more students knowledge of the subjects of the text increased their provisions beyond comprehension. Their judgments are also easily influenced by the memory of the text, i.e. the faster the recall, the higher the provisions, and that the ease of remembering the text is the basis for the provisions of the readers for the beyond comprehension skills (Inderson & Thiede, 2008).

Second: judgments based on expectations of performance: Readers are based on their judgments of beyond comprehension skills on their own competence, which was formed by the accumulation of past experiences and which work to form a priori to predict their future performance. Individuals with a positive academic capacity can make the provisions of beyond comprehension skills high. Students' observation of their understanding of texts is important, and readers cannot continue to understand them, especially in explanatory texts. Their prediction is not accurate in their performance in a test. They do not choose the text that is comprehend, and the accuracy of the observation is reduced when the learning task involves different texts.

It can be noted that there are levels to accommodate any text, which is the surface level, where the representation of text is developed in terms of the form in which it appears and the level of the text base, in which the information is represented in terms of written components, the text base can be seen as a summary to the words in a hypothetical format, so that the meaning presented is left with a simple conclusion. And the level of the circumstance model, there is an integration of the ideas presented with prior knowledge. The texts usually describe the circumstances in which they can exist, where the reader constructs a representation of these circumstances based on the text and previous experiences (Rawson, Dunlosky & McDonald 2002).

Based on the above, readers are sensitive to the structure of the text, it affect the way they treat the text and represent it. Moreover, the understanding is improved when readers are frankly aware of these structures.

The structure of the text may have an impact on the reader's idea of what helps him to understand a particular text in addition to his academic self-efficacy (Thiede, & Dunlosky, 1999).

Academic self-efficacy

Academic self-efficacy refers to the individual's beliefs about his or her ability to organize the process required to achieve the goal. It means that if an individual believes that he has the power to accomplish what he wants, he tries to make it happen (Bandura, 1997), and Bandura stressed that self-efficacy as a cognitive mediator contributes to determining the degree of effort an individual will exert, and therefore in making the decision to move or refrain from performing; academic self-efficacy contributes to the determination of the individual's entrepreneurial behavior (Owen, & Ferman, 1988).

Students with higher academic self-efficacy tend to learn more than students with low academic self-efficacy. Those who believe they can do the job are more likely to do it than those who do not believe they can succeed. Bandura and Wood (1989) suggest that academic self-efficacy directly influences patterns of thinking and behavior, and individuals have beliefs that enable them to exercise control over their thoughts, feelings, and actions. This is a framework for their behavior in terms of their level and content (Bandura, 1986).

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The concept of academic self-efficacy refers to the individual's belief in his own potential, his confidence in his abilities and knowledge, and that he possesses the knowledge and the motivation to achieve his level of satisfaction. Bandura (1986, p126) views academic self-efficacy as an individual's belief in the extent to which he or she can perform academic tasks at the desired level in specific academic subjects, and that these beliefs influence how he or she thinks. Zayat (2001) defines academic self-efficacy: "It is the individual's belief in the level of self-efficacy and its cognitive components to address academic problems. It provides the individual with the ability to self-knowledge based on his belief in the importance of learning. It also shows the individual that he is capable of academic performance that achieves desirable results in a given situation.

The importance of academic self-efficacy

The individual's image of his or her cognitive potential, which evolved through his or her family development, life situations, and previous study experiences, provides him with a perception that determines his or her expectations for success or failure. Thus, academic self-efficacy acts as motivation towards success or failure, and the individual depends on the development of his academic self-efficacy on the comparisons he makes between his abilities and preparations and the possibilities of his comrades and their preparations (Bong, 1997).

Based on the above, students' beliefs about the academic self-efficacy influence their academic behavior through their choice of behavior: it seems that they tend to engage in educational tasks with a high degree of competitiveness, and avoid those who do not (Bandura, 1987). In addition to the amount of effort they exert, students with higher perceptions exert greater effort. The patterns of thinking and reactions determine their beliefs about their academic competence. They tend to feel the power of academic self-efficacy. In addition, self-confidence generates success that leads to a better level of performance. And poor self-confidence generates frequency and retreat from trying; to avoid failure (Bandura, 1986).

Previous Studies

Al-Zaq (2009) conducted a study aimed at identifying the level of academic self-efficacy perceived by the students of the University of Jordan, and the differences in this level, depending on the variables of college, gender and level of study. The study sample consisted of (400) male and female students. The results of the study indicated that the level of academic self-efficacy among university students is moderate, and the results indicated that there are no differences according to gender, and there is interaction between gender and level of education.

To find out the relationship between academic competence and some personal traits, Al-Makhlafi (2010) conducted a study of 110 students from Sana'a University. The results of the study indicated that there is a statistically significant correlation between academic efficiency and some personal characteristics. The results also indicated that there are statistically significant differences between the scores of the sample of the academic proficiency criterion according to gender variable and in favor of females.

In order to discover the contribution of parenting methods and methods of academic identity and adaptation to academic self-efficacy, Badarin and Ghaith (2013) conducted a study of 140 students from Hashemite University. The results of the study indicated that there is a joint and relative contribution to the independent study variables with the dependent study variable which is academic self-efficacy. The results of the study also showed a predictive ability of statistical significance for the method of parenting and the method of commitment to identity and academic adjustment in academic self-efficacy.

In order to establish the habits of the mind as a predictor of academic self-efficacy, Al-Fadhli (2013) conducted a study on a sample of 94 students from the Faculty of Education at Kuwait University. The results of the study indicate a positive correlation between the students' awareness of their academic competence and the use of the habits of the mind, the higher the students' use of the habits of the mind, the higher their appreciation for their academic competence. There are no statistically significant differences due to gender, in addition to the absence of significant statistical differences in the academic self-efficacy in the study sample attributed to the student's scientific or literary specialization.

Rawson, Dunlosky & Thiede, 2000, conducted a study aimed at finding out the effect of beyond comprehension skills on reading and achievement. The study sample consisted of 140 students from the University of North Carolina in the United States of America, and the researchers divided the study into two groups, The first group read the text once, while the second group read the text twice, the results of the study showed that the members of the re-reading group of the text were higher than the members of the other group, and there is no statistically significant difference between the two groups on the beyond comprehension scale.

Lefevre & Lories (2004) also studied the purpose of revealing the impact of beyond absorption on the provision of judgments beyond comprehension and achievement. The study sample consists of (160) students from the University of Illinois at Chicago. The researchers divided the study sample into two experimental groups. The first experimental group's reading was quick and the second experimental group' reading was in time. The results of the study indicate that there is a statistically significant effect of the beyond comprehension on the type of reading, which positively affects the issuance of judgments beyond absorption. The results of the study indicate that the provisions of beyond comprehension have a positive impact on academic achievement, that is, the more the provisions of beyond comprehension of accurate increased academic achievement related to the provisions beyond comprehension.

Moore, Zabrecky & Commander (2005) conducted a study aimed at finding out beyond comprehension in adults and young adults. The researchers used beyond comprehension scale (MCS) to assess the dimensions beyond comprehension, and age differences were examined with comprehension and verbal ability. The sample of the study consisted of (30) individuals, the average age of 23 years old and (30) average age 74 years. The results of the study indicate that there is interaction between the age variable and the beyond comprehension scale, the results also indicated that regulation and control center were key predictors of roles, and that the self-reported use of strategies in cases of failure in comprehension may be an important feature for adult speakers. To uncover the level of beyond comprehension and its relation to reading achievement, Al-Alwan (2012) conducted a study of (847) male and female students from the bachelor level at Al-Hussein University. The results of the study indicated that there was a moderate level of comprehension. The results showed that there is a statistically significant relation between the beyond comprehension skills and the reading achievement, and there are no

differences in the relation between the beyond comprehension and the reading achievement due to the gender and the academic level.

To determine the extent of the contribution of beyond comprehension by predicting with the ability to remember, Al-Zahrani and Al-Gharayba (2014) conducted a study of (96) students from King Saud University. The results of the study indicated that there were no statistically significant differences in the skills of beyond comprehension attributed to gender, the results indicated a positive correlation between the field of the task of beyond comprehension and the ability to remember, in addition to the fact that the predictive relationship of beyond comprehension is not statistically significant except the task domain which has a statistically significant effect.

A review of the previous studies related to the current study indicates that there is no study linking the two variables together, the studies showed that there was a discrepancy in the level of academic self-efficacy among the students. Some showed an average level of academic self-efficacy (Al-Zaq, 2009), and the results of the studies did not show statistical differences in self-efficacy attributed to gender (Al-Zaq, 2009; Al-Fadhli, 2013). While the results of the Makhlafi (2010) study indicated differences in academic self-efficacy due to gender and in favor of females. The results of the studies indicate that there are no statistically significant differences in academic self-efficacy due to academic level and specialization (Al-Zaq, 2009; Al-Fadhli, 2013; Badarin and Ghait, 2011). In terms of beyond comprehension previous studies, according to the different variables studied, Moore, Zabrecky & Commander (2005) found that beyond comprehension has a strong impact on verbal ability in favor of age. Most studies have addressed the variable of beyond comprehension with multiple language texts such as the study of (Anderson & Thiede, 2008), or with the verbal capacity variable as the study of (Moore, Zabrocky & Commander, 2005). Based on the above, the results of the previous study can be said that it agreed about the effect of beyond comprehension on several variables (Anderson & Thiede, 2008).

Problem of the Study

The concept of academic self-efficacy and Metacomprehension, are closely linked to academic achievement and determines the motivation of students and the degree of perseverance in reading tasks to be accomplished, due to the important role played by these variables in the performance of individuals and their various achievements, especially in the field of academic achievement. Based on the above, a sense of the need to identify the level of academic self-efficacy and the level of Metacomprehension was generated, which is of particular importance to students and their parents and the community in general, the researcher noted that students do not analyze the text and trying to know the reasons behind this may be it is a relationship between metacomprehension and academic self-efficacy.

Questions of the Study

The study attempts to answer the following questions:

1. What is the level of academic self-efficacy among students of Al Balqa Applied University?
2. What is the level of metacomprehension among the students of Al Balqa Applied University?
3. Is there a relationship between the academic self-efficacy and metacomprehension among the students of Al Balqa Applied University?
4. Does the level of academic self-efficacy vary according to gender, level of education and college?
5. Does the level of metacomprehension differ according to gender, level of education and college?

Objectives of the Study

- Knowing the level of academic self-efficacy among students of Al Balqa Applied University.
- Knowing the level of metacomprehension among the students of Al Balqa Applied University.

- Ensure that there is a relationship between the academic self-efficacy and metacomprehension among the students Al Balqa Applied University.
- To find out the level of the difference in academic self-efficacy according to the gender, academic level and the college among the students of Al Balqa Applied University.
- To find out the level of the difference metacomprehension according to the gender, level of study and the college among the students of Al Balqa Applied University.

Significance of the Study

The importance of the study stems from the scarcity of studies and research that examined the level of academic self-efficacy and metacomprehension. The importance of this study stems from the fact that it will highlight the levels of academic self-efficacy in light of important independent variables (gender, level of study, and college). In addition, this study will provide more basic information in academic fields, and the disclosure of the factors affecting the academic self-efficacy will facilitate the process of proper educational guidance, which should be taken into account in the development of future educational plans and programs, or as separate training programs. The university is relied upon heavily on the development of thinking and raising the level of academic self-efficacy and metacomprehension, which is one of its main objectives, as it is the students of the university are the ones who bear the burden of leadership and development of society and meet the challenges of the future in a world where thought is most important. Therefore, this study is, in theory, an important step towards strengthening the academic self-efficacy, integration, integration of its determinants and its existence in order to provide more persuasive interpretations of psychological and educational phenomena. The importance of the study stems from the importance of the role of the university, which is one of the most important educational institutions and the strongest. In which the forces and social and natural influences are concentrated in the formation of the student's personality, influencing his behavior, developing his abilities and building a clearer concept of himself.

Practical significance

The importance of this study in determining the nature of the relationship between academic self-efficacy and metacomprehension and the relationship between them, to take into account in improving educational policies, which reflects on the student positively and helps in the growth of his personality and affect the educational process in general. This study can also benefit all those responsible for education in general and university administrators in particular in reviewing the courses, methods of teaching and evaluation methods used to determine their ability to meet the needs of students and satisfy their desires.

The importance of the study is also in its attempt to identify the relationship between metacomprehension and academic self-efficacy, which will contribute to teachers' knowledge of this relationship and the possibility of developing the academic efficiency of the student and improve his ability of metacomprehension, which reduces the chances of dispersion of their minds and their reluctance to perform the tasks related to the subjects, and raise the level of achievement, it works to increase the motivation of achievement in the situations of learning, which contributes to achieve the levels of achievement they aspire, and push them to the planning of educational and learning activities correspond to their goals and needs to make the student more lively with a high degree of ability to interact in classroom situations.

Study determinants

The current study is determined by the following factors: The sample conducted by the students of Al-Balqa Applied University for the academic year (2015-2016). This study is determined by the psychometric characteristics of the study tools used which is the scale of academic self-efficacy and beyond comprehension scale. It is determined by the statistical method used in the analysis. The results of the present study are valid for generalization in the statistical population of this study and similar statistical populations.

Procedural Definitions

Beyond comprehension: It refers to the ability of the person to judge what he learned, and the comprehension of texts. In this study, the total and sub scores obtained by applying the scale of beyond comprehension are meant.

Academic Self-efficacy : A set of skills required for students, which must be carried out, in order to achieve a level of perfect achievement, and improve the methods of confrontation and address the demands that may be a burden on them, which helps to perform academic tasks, academic self-efficiency is defined procedurally in the overall degree achieved by the tested students on the Academic self-efficiency scale .

Study variables

The study included the following variables:

The independent variables: are academic self-efficacy and gender; it has two levels: male and female, the academic level; it has four levels: (first, second, third, fourth); the faculty has two levels: human and scientific.

The dependent variable: Beyond comprehension

Population of the study and its sample

The study population consisted of student of the Al-Balqa Applied University in the first semester 2015/2016. The study sample consisted of (902) male and female students, and table (1) shows the frequency and percentage of the sample members by gender, academic level, and college.

Table (1) Frequency and Percentages by Study Variables

Variables	Categories	Frequency	Percentage
Gender	Male	402	44.6
	Female	500	55.4
Academic level	First	260	28.8
	Second	200	22.2
	Third	205	22.7
	Fourth	237	26.3
College	Humanities	487	54.0
	Scintefic	415	46.0
	Total	902	100.0

Study Tools

First: Academic self-efficacy Scale

The scale was built after examining the tools used in previous studies and theoretical frameworks in this field. The scale consists of ten items listed on a scale of four alternatives (rarely, sometimes, often, always). The respondent responds to each item by choosing one of these alternatives by making a reference to the item and under the alternative that he deems appropriate for his convictions. Alternatives are given the following grades (1, 2, 3, 4), respectively.

Validity of the Scale

Content Validity: The scale was presented to (10) faculty members of the Department of Educational Psychology at the Faculty of Education, Prince Sattam bin Abdul-Aziz University. They were asked to judge the extent to which the items represented self-efficacy and the correct wording of the items, and any other observations they considered appropriate, and 80% and above were adopted to maintain the item as appropriate. It was clear from the arbitrators' estimates that all items measured self-efficacy, the wording of some items was modified.

Reliability of the Scale

The reliability signs of the scale were obtained using the test/retest method. The test was applied twice and at a time interval of two weeks to a sample of (60) male and female students from outside the study sample, the correlation coefficient between students' scores was in the two applications (0.83). The Kronbach Alpha coefficient was also extracted as an indicator of the internal consistency of the scale using the previous experimental sample. The results resulted in a reliability factor of (0.81).

Second: Beyond comprehension Scale

The scale of Moore, Zabucky & Commander (1997) was used to measure the level of beyond comprehension, where the scale has the connotations of high validity and reliability. The scale consists of (22) items covering seven dimensions: anxiety, achievement, strategy, capacity, task, control center, and organization.

Validity of the Scale

In order to extract the signs of construction validity of the scale, the coefficients of the items of the scale were extracted with the total score in a survey sample from outside the sample of the study consisting of (60) students, the items of the scale were analyzed and the correlation coefficient of each item was calculated for each item in the form of correlation coefficient between each item and the total score on the one hand, and between each item and its relation to the field to which it belongs, and between each domain and the total score on the other hand, and the correlation coefficients of items with the tool as a whole between (0.51-0.83) and with the domain (0.58-0.97) and table (2) shows this.

Table (2) Correlation coefficients between items and the total score and the domain to which they belong

Item N	Correlation coefficient with domain	Correlation coefficient with the tool	Item N	Correlation coefficient with domain	Correlation coefficient with the tool	Item N.	Correlation coefficient with domain	Correlation coefficient with the tool
1	.89**	.66**	9	.97**	.83**	17	.81**	.72**
2	.89**	.83**	10	.94**	.80**	18	.88**	.81**
3	.89**	.66**	11	.82**	.78**	19	.70**	.65**
4	.92**	.78**	12	.97**	.83**	20	.93**	.82**
5	.85**	.81**	13	.79**	.77**	21	.90**	.79**
6	.77**	.82**	14	.94**	.74**	22	.74**	.62**
7	.58**	.51**	15	.94**	.80**			
8	.93**	.79**	16	.94**	.74**			

* Statistically significant at the level of (0.05)

** Statistically significant at the level of (0.01).

It should be noted that all correlation coefficients were of acceptable grade and statistically significant, and therefore none of these items were deleted.

Table (3) correlation coefficients between the domains and total score

	Anxiety	Achievement	Organization	Task	Capacity	Strategy	Control center	Beyond comprehension as a whole
Anxiety	1							
Achievement	.702**	1						
Organization	.634**	.642**	1					
Task	.575**	.768**	.740**	1				
Capacity	.692**	.756**	.696**	.709**	1			
Strategy	.745**	.806**	.670**	.737**	.786**	1		
Control center	.650**	.656**	.961**	.757**	.707**	.719**	1	
Beyond comprehension	.826**	.877**	.878**	.862**	.872**	.891**	.894**	1

* Statistically significant at the level (0.05).

** Statistically significant at the level of (0.01).

Reliability of the scale

In order to ensure the reliability of the study instrument, it was verified by the test-retest by applying the scale and re-applied it after two weeks to a group outside the study sample consisting of (60) students. Therefore, Pearson correlation coefficient was calculated between their estimates at both times, the consistency coefficient was calculated in the internal consistency method according to the Kronbach alpha equation. Table (4) shows the coefficient of internal consistency according to the Kronbach alpha formula and the regression coefficients for the domains and instrument as a whole.

Table (4) internal consistency coefficient Kronbach Alpha of and repetition reliability for the domains and total score

Domain	Repetition reliability	Internal consistency
Anxiety	0.91	0.79
Achievement	0.84	0.93
Organization	0.87	0.88
Task	0.89	0.86
Capacity	0.90	0.83
Strategy	0.88	0.70
Control center	0.87	0.88
Beyond comprehension	0.89	0.96

Results of the Study

To answer the first question: What is the level of academic self-efficacy among the students of Balqa Applied University? The arithmetical averages and standard deviations of the level of academic self-efficacy among the students of Al-Balqa Applied University were obtained, with an average of 3.25 and a standard deviation of (0.549) with a moderate degree.

To answer the second question: What is the level of beyond comprehension among the students of Balqa Applied University? The arithmetical averages and standard deviations were extracted for the level of beyond comprehension of Al-Balqa Applied University students, and table (5) illustrates this.

Table (5): The arithmetical averages and the standard deviations of the level of beyond comprehension of the students of Al Balqa Applied University are ranked descending by arithmetic averages

Rank	N	Domain	Mean	Standard deviation	Level
1	2	Achievement	2.84	1.065	Moderate
2	5	Capacity	2.67	1.033	Moderate
3	4	Task	2.62	.989	Moderate
4	6	Strategy	2.61	.921	Moderate
5	7	Control center	2.59	1.040	Moderate
6	3	Organization	2.56	1.134	Moderate
7	1	Anxiety	2.07	.813	Low
Beyond comprehension			2.54	.845	

Table (5) shows that the means ranged between (2.07-2.84), where the achievement was ranked first with the highest mean of (2.84), while anxiety came last with a mean of (2.07) and the mean of the instrument as a whole reached (2.54).

To answer the third question: Is there a relationship between the academic self-efficacy and beyond comprehension of the students of Al- Balqa Applied University? Pearson correlation coefficient was extracted between the academic self-efficacy and beyond the comprehension of the students of Al-Balqa Applied University, and table (6) illustrates this.

Table (6) Pearson correlation coefficient of the relationship between the academic self - efficacy and beyond comprehension of the students of Al-Balqa Applied University

	Dimensions of beyond comprehension							
	Anxiety	Achievement	Organization	Task	Capacity	Strategy	Control Center	Beyond comprehension
Self-efficacy	.665**	.728**	.784**	.738**	.702**	.711**	.669**	.728**

* Statistically significant at the level (0.05).

** Statistically significant at the level of (0.01).

Table 6 shows that all correlation relationships are statistically significant, and at positive levels between self-efficacy and beyond comprehension, both at the macro level and at the level of one dimension, the total value of the correlative relationship between self-efficacy and beyond comprehension as a whole reached (0.728), which is a positive value that confirms the effective role of self-efficacy in the development of beyond comprehension. The strongest relationship was the self-efficacy with the dimension (organization) where the strength of this correlation reached (0.784), while the weakest relationship is the relationship with the dimension (anxiety) where the strength of this correlation reached (0.665).

There is also a statistically significant positive relationship between the academic self-efficacy and beyond comprehension of the students of Al-Balqa Applied University.

To answer the fourth question: Does the level of academic self-efficacy vary according to gender, academic level and college? In order to answer this question, the arithmetical averages and standard deviations of the level of academic self-efficacy were extracted according to gender and the academic level variables. The results showed an apparent variance in the arithmetical averages and standard deviations of the level of academic self-efficacy due to the different categories of gender and the academic level and college level variables. In order to detect whether these differences are statistical significant at the level of significance ($\alpha \leq 0.05$) Three-Way Anova analysis was performed and table (7) shows the results of this.

Table (7): Three-Way Analysis of variance (ANOVA) of the impact of gender, college and academic level on the level of academic self-efficacy

Source of variance	Sum of squares	Df	mean of squares	"F" value	Sig
Year of study	3.453	3	1.151	5.618	*.001
College	34.871	1	34.871	170.207	*.000
Gender	.427	1	.427	2.082	.149
Error	181.723	887	.205		
Total	4662.629	902			

* Statistically significant at the level (0.05).

** Statistically significant at the level of (0.01)

In order to know these differences are attributed to what, Scheffe posttest was used and table (8) illustrates this:

Table (8): Results of Scheffe test for post comparisons of the categories of scientific degree variable

Year level	Mean	1 st year	2 nd year	3 rd year	4 th year
First year	3.22	-	-.0633	-.0722*	-.0211*
Second year	3.28		-	-.0089*	-.0422
Third year	3.29			-	.0511
Fourth year	3.24				-

The data in table (8) indicate that the differences were statistically significant at the level of ($\alpha \leq 0.05$) between the levels of study (1, 2 and 4) and in favor of the second level, as well as between the levels of study (second and third) in favor of the third level of the study. The results also indicated that there were significant differences ($\alpha \leq 0.05$) attributed to the effect of the college where the value of "F" reached (170.207) and statistical significance (0.701) for the benefit of the scientific colleges where the mean of the scientific colleges (3.30) and the humanities faculties (3.25), while there were no statistically significant differences ($\alpha \leq 0.05$) due to the effect of the gender variable with a value of "F" (2.082) with a statistical significance reached (0.149).

Question 5: Does the level of beyond comprehension differ according to gender, school and college? In order to answer this question, a multivariate analysis was used to detect differences in the level of beyond comprehension due to the demographic variables (gender, school level, and college), table 9 illustrates the results.

Table (9): results of Multivariate Analysis to Detect Differences in the Level of beyond comprehension according to (Gender, Academic year level, and College)

Source of variance	Sum of squares	Df	mean of squares	"F" value	Sig
Study level	.717	3	.239	2.013	.111
Gender	9.988	1	9.988	84.166	*.000
College	1.361	1	1.361	11.469	.001*
Error	72.979	615	.119		
Total	3585.708	630			

Table (9) shows that there were no statistically significant differences at the level of significance ($\alpha 0.05$) due to the effect of the variable of the academic level at (2.013). In addition, there were statistically significant differences ($\alpha = 0.05$) due to the effect of the gender variable, with a value of "F" (84.166) in favor of the females, where the female mean reached (2.67) and males (2.54). In addition, there were statistically significant differences ($\alpha 0.05$) due to the effect of the college variable where the value of "F" reached (11.469) in favor of the scientific colleges where the mean of the scientific colleges reached (2.60) and the humanities colleges (2.50).

Discussion of the results of the study

The majority of the study sample fall in the level of intermediate academic self-efficacy can be explained that the process of self-awareness is still growing and gaining experience, as individuals at this stage have not reached the stage of total self-reliance and are in the process of building many skills that help them to Decision-making. They need to gain experience, which supports direct and indirect information, and works to create positive attitudes about the individual's abilities and potentials and thus works to raise the individual's ability to face events and take positions towards them. Bandura (1977) points out that self-perceptions are important in understanding the relationship mechanisms between the stimuli and the successful behavior towards them, as the process of self-regulation and raising the level of academic self-efficacy needs to experience, knowledge and activities, which helps to self-perception and the formation of the system of self in all aspects, and this is worth mentioning in this regard.

The researcher attributes the classification of most members of the study sample to the level of academic self-efficacy by adopting the level of self-competence of the individual and the extent of responsibility towards situations that require him to rely on his own abilities and capabilities and thus the ability to perform (Al-Ziq, 2009). This requires individuals to have educational learning experiences that increase their academic self-efficacy (McValve, 2010) and by imparting the knowledge through which they can act on what has been gained (Pajares, 1999). The correlation between these two variables can also be explained in the light of Pandora's assertion that academic self-efficacy affects behavior and performance, and therefore the high sense of academic self-efficacy can contribute significantly to raising the motivation for achievement and effective participation in activities inside and outside the university (Lent, Brown, Larkin, 1984). High academic self-efficacy often predicts success, increasing their motivation to achieve the best possible performance, and finding effective and good solutions to problems they may encounter (Maddux, J. & Lewis, 1995). Pandora emphasizes that academic self-efficacy influences behavior, motivation and performance, and therefore the high sense of academic self-efficacy can contribute significantly to raising the level of active participation in various activities within and outside the university. High academic self-efficacy often predicts success, increasing their motivation for best performance. The motivation for achievement also has a major impact on scholastic achievement. Pandora stressed that exchange does not mean uniformity in power, nor does it mean a fixed time model of influence (Colvion & Bruning, 1995).

The results of the study indicate an average level of beyond comprehension, the current result may be that students at this stage have the ability to link sentences and meanings and organize information. And knowing what the paragraphs contained of main and other paragraphs, and other basic and sub-ideas (zhao & Linderholm, 2008).

This will contribute to increasing the absorptive capacity and to building the meaning intended by the author, without wasting time tracking secondary elements. This result can be explained by the fact that students have a significant linguistic output, and greater knowledge (Rawson, Dunlosky & Thiede, 2000) which helps them to develop their language skills, the ability to understand meanings and derive ideas. They are better able to communicate with the reading material, re-form the written "message", and understand the direct and indirect meaning, taking advantage of the linguistic references, and the connotations of the linguistic context (Moore et al, 1997). The result of this study can be explained by the fact that students at this stage possess strategies beyond comprehension, language and literacy skills that are positively related to reading comprehension, decoding ability, knowledge of the limits of meaning in the sentence, word processing, and comprehension of meanings (Dunlosky & Lipko, 2007) . In order to reach beyond the comprehensiveness of integrated levels, they do not stop at the superficial and crafty meanings, but go beyond interpretation and reasoning, trial and prediction, and they are more interested,, more focused on the reading material, and more diverse than the sources of reading (Owen, & Froman, 1988).

The result can be explained to the educational environment provided by the university by allowing students to make predictions and interpretations during the study of texts, and the accompanying social atmosphere that contributes to increased awareness of the text and the ability to articulate ideas. This has resulted in deep processing of texts leading to the practice of prediction and interpretation effectively, resulting in positive results beyond the comprehension of texts.

This finding can be explained by the fact that faculty members are more interested in promoting the self-concept of students in the reading process on the one hand, and increasing their self-confidence, ability,

skills and sense of success on the other, the results consistent with those of (Anderson & Thiede 2008), (Lefevre & Lories, 2004), which in its entirety referred to the impact of beyond comprehension on academic achievement.

The researcher can attribute the current result to first-year students coming from school, which makes them more motivated than other students in the university's advanced years. They give importance to time, and make a greater effort to search for the meaning of unknown vocabulary through the context, and conversely in the case of texts with known vocabulary (Moore, Zabrocky & Commander, 2005) . Thus tracking and understanding ideas and reaching appropriate conclusions (Bandura, 1986). If they do not know the meanings of the text, they spend their time and effort searching for meaning through the context. The context may not be useful in determining its meaning, especially when the text is redundant with unknown vocabulary or when the context is unclear to the meanings of those unknown words.

Thus the text prevails in a state of ambiguity and complexity (DeBruin, Remy, Rikers, & Henk, (2007). This in turn creates a state of frustration and tension in the reader which lessens his motivation to read the text, and becomes less attention and concentration. This, in turn, limits his ability to track and understand ideas and meanings, to understand the relationships between causes and results, and to draw conclusions, which results in poor performance on the reading comprehension test (Anderson & Thiede, 2008). Students who have beyond comprehension skills are more able to vary reading as the meaning requires, and have the ability to interact with reading. Individuals may turn to reading, and reading critically. While students with low literacy abilities lack such experiences and thus have difficulty understanding the meanings contained in written texts, especially meanings that require higher mental abilities, based on conclusion and prediction (Baker, Dunlosky, 2006).

In the view of the researcher that the characteristics of individuals who have a large degree of beyond comprehension skills, adapt themselves through the experience gained from the practice of reading with the goal they seek and by resorting to the type of appropriate reading. If the goal is criticism, they tend to focus, and if the goal is to obtain the overall meaning, they will go through reading, and if the goal is to predict, they focus on linking relationships in the text (Moore, Zabrocky & Commander, 2005).

They have the ability to learn methods, structures, read multiple types in texts, assign different information positions, and extract them from the text, the process that is the core of beyond comprehension; meaning that the ability to transcend comprehension increases with reading practice and progresses with increasing literacy experiences which is lacking in individuals with a low degree of interpersonal skills (Baker, Dunlosky, 2006). Consequently, they often fail to access, extract and effectively assimilate information, and stand in their comprehension at the lower levels, such as assimilation at the literal level only, and are unable to reach higher levels of assimilation such as symbolic, applied and integrative levels (Anderson & Thiede, 2008)

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