

Evaluating learner autonomy Concept of EFL students at university level through cognitive reading strategies. A Case study of EFL Saudi Arabia Students of The Applied College at Northern Border University

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Abstract:

The study is about evaluating the learner autonomy concept of EFL students at the university level through cognitive reading strategies. Moreover, the researcher observed the phenomenon properly and noticed that students of Northern Border University (Applied College) at the first level have problems implementing the cognitive reading strategies, in the sense that these strategies are a useful device to trigger their understanding of what they need to understand the English language.

This type of study is a descriptive study in the way that data is analysed descriptively. A sample of the study consists of 40 students who are studying English language courses in the preparatory year, and they are nearly 18–20 years old. Data collection for the study includes a pre-test and post-test and a questionnaire to measure the development of the students. The researcher used the statistical analysis program SPSS to analyse the data collected.

Results of the study found that there is no significant correlation between change in test score and motivational practices perspective (correlation coefficient = 0.07 and P value = 0.739). To sum up, the analysis found that there is a significant change in the scores of the two tests, and there is also a correlation coefficient between the sections of the questionnaire mentioned above.

Keywords: Learner Autonomy, Cognitive Perspective, Motivational Perspective, Cognitive Strategies, correlation analysis

INTRODUCTION

It has been discussed that the term 'learner autonomy' (LA) is widely used in different academic firms and fields, especially in theoretical and applied linguistics and in English as a foreign language . Furthermore, it is not just a hassle to define a single term in applied linguistics, but this term 'Learner Autonomy' has had a great impact and influence on the field of foreign language learning during the last few decades of both the 20th and 21st centuries. The researcher also defines the term cognitive reading strategies as cognitive knowledge in the sense that this concept enables the learners to

¹ The study is about evaluating learner autonomy Concept of EFL students at university level through cognitive reading strategies. The researcher focuses on this field of interest in order to support students of English at university level first level with purposeful concepts and procedures to overcome, develop, and trigger their career with a useful method of learning. Moreover, the researcher has great interest to search in the field of learner autonomy and to support EFL students with purposeful techniques and procedures in order to challenge, overcome, and even trigger their understanding of the concept learner autonomy.

plan, monitor, manage, and reflect on the process of developing language skills. Thus, “learner autonomy has obviously certain requirements. To be autonomous and to take an active role in using language skills requires the learners to be independent, reflective, and proactive in the process of language learning.” Abbas Ali Zarei (2010). Another claim stated that: “*the learners’ ability to interpret or work out the meaning of a written text and react towards it as a result.*” Alexander Castillo & Sonia Jiménez (2014). There is a claim that says, “Learner autonomy is the power of learners to make their own decisions with regard to learning. It is a situation whereby learners themselves participate in deciding the content of their learning and how to go about it. (Clement Gowon & Sunday 2018. Page: 807). Another claim about learner autonomy is that “autonomous learners should take responsibility for their learning and control over their learning management, cognitive process, and learning content.” (Nguyen Thi Dieu Ha, 2021: Page 60) Another claim about reading comprehension is that: “the ability to make inferences from given information in a text and from background information has been described as the heart of the reading process.” Making inferences is often considered the ability to read between lines.” Anderson & Pearson (1984), Cited on (Nguyen Thi Dieu Ha, 2021, page 61).

LITERATURE REVIEW

The researcher introduced a brief definition of the term learning autonomy. Learner Autonomy. The researcher makes use of defining the term cognitive reading strategies. In this research paper, the researcher discusses the importance of cognitive reading strategies as a useful device to trigger and develop the concept of learner autonomy and reach the attitude of taking responsibility over one’s own learning English as a foreign language among students in preparatory years at the university level. With no doubts, there is strong evidence for the need to evaluate ‘learner autonomy’ through reading, because the researcher has a crucial means of choosing the reading skills or strategies to be implemented in classrooms or as a general among EFL students, how these strategies support students at the university level, and to what extent they need them to overcome their difficulties in academic achievements. The researcher chooses reading as a device to evaluate students’ degree of learner autonomy in light of that reading is a productive skill and has many strategies (cognitive and meta-cognitive). It has been claimed that “autonomy is a situation in which the learner is totally responsible for all the decisions concerned with his or her learning and the implementation of those decisions.” (Dickinson (1978:11)) Cited in Rufat Osmani (2019: 3). In the conclusion of a research study by Abbas Zari (2010) on the relationship between learner autonomy and reading comprehension; stated that “there is a positive, though moderate, relationship between learner autonomy and reading comprehension ability. Most researchers agree that high-proficient and autonomous readers are more confident in dealing with complex reading activities.” Abbas Zari (2010).

“There are two main reasons for studying cognitive reading strategies. Firstly, cognition or metacognition knowledge enables learners to be active and constructively responsive individuals who could take charge of their learning process.” Annury, M., Mujiyanto, J., Saleh, M., & Sutopo, D. (2019:63). The findings of the same study concluded that “learners made use of metacognitive reading strategies in order to plan, arrange, and evaluate the success of their learning process. They were conscious of their cognitive process during reading and were able to utilize a wide array of

metacognitive reading strategies to achieve comprehension.” Annuary, M., Mujiyanto, J., Saleh, M., & Sutopo, D. (2019:64). Thus, the researcher agreed on the conclusion of the study findings in the way that the findings of the study support the current study in the way that cognitive reading strategies trigger, facilitate, and foster the concept of learner autonomy in the way that EFL students of the current study propose to trigger students’ comprehension of the concept of learner autonomy and evaluate the essence of the learner autonomy concept so far.

A conclusion of a study stated that: “ reading strategies encouraged students to see that they were builders of their own knowledge and possibilities. Through this process, learners were more openminded and reflective regarding how to use and apply the reading strategies for effective reading and to promote their autonomy.” Cited on Castillo, A., & Bonilla, S. A. (2014:76). Another study result claims that “Learners’ improvement in reading comprehension skills is helpful in generating students’ awareness of the importance of learning autonomy in reading skills as well as other subjects.” Cited on Dieu Ha. N. T. (2021:63). Moreover, the use of three reading strategies is a motivational process that guides learners to study in an autonomous way in which they can make decisions to set goals and plan their learning process. Moreover, these strategies encourage students to build up learner autonomy through their learning style to achieve their goals.” Cited on Dieu Ha. N. T. (2021:63). A further claim says that “When learners read, they interpret, integrate, critique, infer, analyse, connect, and evaluate ideas in texts. They also try to negotiate multiple meanings in their minds. Ahmed. R. M. (2020: 294). Moreover, in addition to the above claims, there is strong evidence in a research conclusion of the final results that says: “ the use of the three reading strategies (skimming, scanning, and making predictions) is an enriching process to guide learners along the path of autonomy, particularly in terms of decision making for learning, and also increasing awareness of their own reading learning.” Castillo. A.I & Bonilla. S. J (2014:76).

QUESTIONS OF THE STUDY

The questions of the study are:

1. Does the implementation of cognitive reading strategies improve EFL students at the university level and trigger the concept of learner autonomy?
2. Do cognitive reading strategies measure the degree of learner autonomy among EFL students by creating bridges to the process of recovering the barriers they confronted?
3. Do cognitive reading strategies as a motivational device help EFL students reach the concept of learner autonomy?

Hypotheses of the Study

In order for the researcher to investigate the research phenomena and introduce a useful result, it is important to test the hypothesis of the paper to fulfil the researcher’s claims and views; therefore, the research hypothesis of this study is:

- Implementation of cognitive reading strategies improves EFL students at the university level and triggers the concept of learner autonomy.
- Cognitive reading strategies measure the degree of learner autonomy among EFL students by creating bridges to the process of recovering from the barriers they confront.

- Cognitive reading comprehension strategies as a motivational device may help EFL students reach the concept of learner autonomy.

Population of the Study

The researcher in this research study selected a sample of the population from the university level in order to test the hypothesis properly. The researcher selected EFL learners who are studying English language skills in the first semester of the Faculty of Applied College at Northern Boarder University, Saudi Arabia. The students' characteristics indicate that the researcher selected them as all male students from semester one. They are 40 students and are all nearly the same age and from different backgrounds. The researcher selected this sample of EFL students from the university level, and they are EFL students of Northern Boarder University of the Applied College in the way that the researcher foreseen that they are more competent to deal with the experiment and the phenomena being investigated. Moreover, in addition to that, the researcher has foreseen that the sample size of the study is suitable in terms of the number of samples and their level of study. Moreover, the researcher divided the population sample into two groups: the control and the experimental group. The two groups engaged in a quasi-experimental design of data collection.

Methods and Tools of Data Collection

The data collection the researcher followed to carry out this research study was a pre-test and post-test, and they were given to the EFL students at Northern Boarder University, Applied College. Students were studying at the first level, and they learned the curriculum (QSkills for Success). It is a blended English language course. In addition, there were intervention and training hours for the students after the pre-test and before the post-test. The training was for the two groups, the control group and the experimental group, as well. Moreover, the researcher used another measurement after students had the post-test; it is a structured questionnaire, and it has closed-ended items to be ticked off by students of the experimental group in the way that the researcher will make use of a designed questionnaire for the students to measure the degree of learning autonomy among EFL students and to know at which level the results show in scales and measurements. These measurements are valid in the way that they measure what is supposed to be measured and also reliable in the way that the reader can depend on the outcomes and the results and meet a degree of high explicit results that support the research objectives, outcomes, findings, and recommendations. The sample of data collection selected EFL students of Preparatory Year College at Northern Border University, Applied College in Saudi Arabia.

Pretest-Post test

The researcher selected the pre-test and post-test tools of data collection in such a way that they are suitable for the research design, the study of statistical entities, and the possibility of measuring what is supposed to be measured. A pre-post-test design is an experiment where measurements are taken both before and after the treatment or intervention. The design means that you are able to see the effects of some type of treatment on a group. Pre- and post-test designs are conducted using the quasi-experimental method, which means that participants are not assigned randomly. In addition to that, Samuel J. Stratton (2019) discussed that "pre-post-test design is also used to evaluate participants attitudes or perceptions relative to an event or to assess

comfort in applying the information presented in a training session or with the introduction of a new concept (acceptance and efficacy study). One would assume that an increase in knowledge or positive attitude that is evident in better scoring on a post-test compared to a pre-test implies better knowledge or perception relative to an intervention applied after the pre-test.”

The Questionnaire

The researcher selected an item from a questionnaire or a survey, and therefore, this type of questionnaire and survey enable the researcher to ask students questions to know the degree of their reflections on the pre- and post-test. A tightly structured schedule check list of questions is a useful device to measure the degree of change and development after the intervention and the post-test. The items contained in the questionnaire have been adapted and paraphrased from a research study by Ali Alzobi (2019).

In addition to that, the researcher is going to apply the questionnaire to an experimental group of 40 students. The researcher designed a close-item questionnaire in which they are relatively easy to administer, code, and analyse. The 40 students in the experimental group responded to the questionnaire items after being included in the intervention.

Tools of Data Analysis

In order for the researcher to carry out and bring real results and outcomes with a high degree of explicitness to the research study, there would be a data analysis and findings after the implementation procedures of data collection. The researcher makes use of specific procedures for the analysis of the collected data. The researcher used a useful computer program for the calculation of data. In order to analyse the collected data, the researcher selected the program SPSS to analyse the study's data. SPSS is a software program to analyse scientific data related to the social sciences. This program has been used by the majority of researchers in the sense that it offers a vast visual modelling environment that ranges from the smallest to the most complex models. The data obtained from SPSS is used for pretests, post-tests, surveys, data mining, market sheets, etc.

RESULTS, FINDINGS, AND DISCUSSION

Results of the pre-test and post-test

The study provides the results of the pre-test and post-test. The researcher subjected the students (the controlled and experimental groups) to pre- and post-tests to collect data. The experiment was about a pre-test and post-test of five cognitive reading strategies and an intervention time after the pre-test and before the post-test. It came out with quite dependable and linear results.

Therefore, the researcher introduces strong evidence to say that the pre-test and post-test scores results found that there is strong evidence to say the mean pre-test score is 3.8 with a standard deviation of 2.0 and the mean post-test score is 7.0 with a standard deviation of 1.0. This is an indication that the intervention resulted in an improvement in student performance from pre- to post-test. A T-test for paired samples was implemented to test whether the difference between the pre- and post-test mean score is statistically significant or not. The p-value calculated from the paired sample T

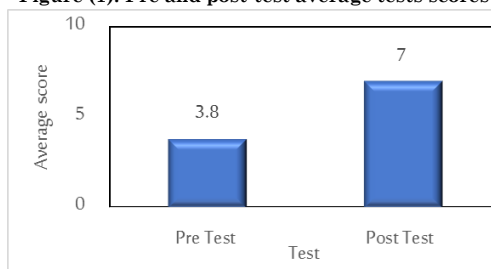
test score is found to be 0.000 (far less than 0.05), which indicates that the difference between the pre- and post-test scores is statistically significant to a quite extinctive level of evaluation.

The following are Table 1 and Figure 1, in which they figure out the test score results and the comparison of the pre- and post-test scores with the standard deviation and the P-value of the controlled and experimental groups.

Table (1): Comparison of pre and post test scores

	Count	Mean	Standard deviation	P-value
Pre-Test Score	32	3.8	2.0	0.000
Post Test Score	32	7.0	1.3	

Figure (1): Pre and post-test average tests scores



As the researcher introduced the test score results of the pre-test and post-test, the mean of the pre-test scored 3.8 with a standard deviation of 2.0, while the mean of the post-test scored 7.0 with a standard deviation of 1.3. This is an indication that the intervention resulted in an improvement in the student's performance from pre-test to post-test. The T-test for paired samples was implemented to test whether the difference between the pre-test and post-test mean score is statistically significant or not. The P-value calculated from the paired sample T-test is found to be 0.000 (far less than 0.05), which indicates that the difference between the pre-test and post-test scores is statistically significant.

Therefore, the researcher is going to introduce the comparison of pre- and post-test scores per test item (the 5 cognitive strategies). The researcher is going to introduce the results comparison of both pre- and post-tests per test per item to figure out and classify the results of both pre- and post-tests.

The results of the pretest showed that the controlled group, with a total of 32 students, had the test and achieved quite low scores. The first strategy, 'prediction' scored a mean of 1.1. and a standard deviation of 0.63. In the second strategy, 'finding the main idea', students scored a mean value of 1.1 and a standard deviation of 0.75. In the third strategy, 'inferences' students scored a mean value of 0.8 and a standard deviation of 0.72. In the fourth strategy, 'mind map', students scored a mean value of 0.3. and a standard deviation of 0.53. In the fifth strategy, 'summarizing texts', students scored 0.40, and the standard deviation was 0.52.

The post-test results are the following: In the first strategy, 'prediction', students scored a mean of 1.8 and a standard deviation of 0.44. The second strategy, 'finding the main idea', had students score a mean value of 1.7 and a standard deviation of 0.59. In the third strategy, 'inferences', students scored a mean value of 1.7 and a standard deviation of 0.74. The fourth strategy, 'mind 'map' students, scored a mean

value of 0.9 and a standard deviation of 0.52. In the fifth strategy, "summarizing texts", students scored a mean value of 1.0. and a standard deviation value of 0.51.

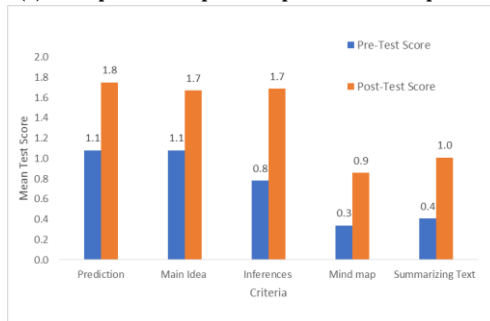
The following are table (2) and figure (2), which reflect the comparison between the two tests (pre-test and post-test) of the cognitive reading strategies per test item.

It has also been noticed that there is quite a noticeable improvement in the student's performance in the post-test scores in Figure 2 below. The study consequences of the five cognitive reading strategies in the post-test scored higher scores than the pre-test ones, and the diagram witnesses the difference. The following are table (2) and figure (2), which reflect the comparison between the two tests (pre-test and post-test) of the cognitive reading strategies per test item.

Table (2): Comparison of pre-test and post test scores per test items

Item	Pertest score		Post test score	
	Mean	Standard Deviation	Mean	Standard Deviation
Prediction	1.1	0.63	1.8	0.44
Finding Main idea	1.1	0.75	1.7	0.59
Inferences	0.8	0.72	1.7	0.47
Mind map	0.3	0.53	0.9	0.52
Summarizing text	0.4	0.52	1.0	0.51

Figure (2): Comparison of pre and post test score per test items



Results of Learner Autonomy (The Questionnaire)

After the students had the pre-test and post-test, the researcher gave them the semi-structured questionnaire for the experimental group to see if they tackled the concept of learner autonomy after a series of reading tasks during the semester. The questionnaire has about 25 items to be checked out. The researcher foreseen that these cognitive reading strategies as a device develop EFL students' comprehension of the concept of learner autonomy in the classroom at Applied College at Northern Boarder University. Data obtained from pre- and post-tests may have strong evidence to support the claim of developing learner autonomy.

Results of the cognitive and methodological items of the questionnaire

The results of the questionnaire are the following: The first item, "I preview reading texts", scored a mean value of 3.9. and a standard deviation of 1.2. The second item, "I preview types of reading texts", scored a mean 4.1 and a standard deviation value of 1.1. "I plan my learning reading" scored 4.2 and had a had a standard deviation value of

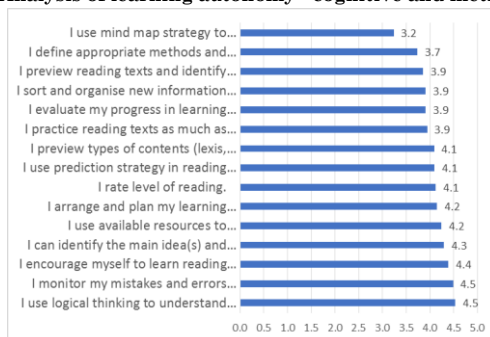
1.0. "I define appropriate methods" scored a mean 3.7 and a standard deviation of 1.2. "I monitor my mistakes and errors" scored 4.5. and had a had a standard deviation value of 0.9. "I evaluate my progress" scored a mean 3.9 and a standard deviation of 1.2. "I rate the level of reading" Scored mean 4.1. and standard deviation value 1.2. "I use mind map strategy" scored a mean 3.2 and a standard deviation of 1.4. "I practice reading texts" Scored mean 3.9 and standard deviation value 1.2. "I can identify the main idea" scored a mean 4.3 and a standard deviation value of 0.8. "I use available resources" scored a mean of 4.2 and a standard deviation value of 0.8. "I use logical thinking" scored a mean 4.5 and a standard deviation value of 0.7. "I sort and organize new information" scored a mean of 3.9 and a standard deviation value of 0.9. "I use prediction strategy in texts" scored a mean of 4.1 and a standard deviation value of 1.1. "I encourage myself to learn reading" scored a mean of 4.4 and a standard deviation value of 1.0. The overall sum of the cognitive reading strategies the students used scored 3.89 and the standard deviation value was 0.83, and that means the students succeeded in understanding the concept of learning autonomy in the way that they overall sum of the mean value of the criteria 3.89 pointed to the criteria "often" in questionnaire rates, and that means students often use these strategies while reading texts in the classroom. Meanwhile, the recent result means that students triggered their concept of learning autonomy in the way that they contributed effectively by applying these cognitive reading strategies. The following are Table (3) and Figure (3), which show the results and analysis of learning autonomy from a cognitive and methodological perspective and, as a result, represents the mean value of each item activity.

Table (3): Analysis of learning autonomy - cognitive and methodological perspective of the Questionnaire

		Never	Rarely	Sometimes	Often	Always	Total	Mean	Standard deviation
I preview reading texts and identify goals and objectives of the reading.	Count	1	4	9	5	15	34	3.9	1.2
	%	2.9%	11.8%	26.5%	14.7%	44.1%	100.0%		
I preview types of contents (lexis, grammar, vocabulary) of reading texts.	Count	1	1	10	4	18	34	4.1	1.1
	%	2.9%	2.9%	29.4%	11.8%	52.9%	100.0%		
I arrange and plan my learning reading efficiently.	Count	0	2	8	6	17	33	4.2	1.0
	%	0.0%	6.1%	24.2%	18.2%	51.5%	100.0%		
I define appropriate methods and techniques of reading texts.	Count	1	5	9	6	13	34	3.7	1.2
	%	2.9%	14.7%	26.5%	17.6%	38.2%	100.0%		
I monitor my mistakes and errors while learning reading.	Count	0	2	4	3	24	33	4.5	0.9
	%	0.0%	6.1%	12.1%	9.1%	72.7%	100.0%		
I evaluate my progress in learning reading.	Count	1	4	7	7	15	34	3.9	1.2
	%	2.9%	11.8%	20.6%	20.6%	44.1%	100.0%		
I rate level of reading.	Count	2	0	9	4	19	34	4.1	1.2
	%	5.9%	0.0%	26.5%	11.8%	55.9%	100.0%		
I use mind map strategy to remember and retrieve information in reading texts.	Count	3	11	6	3	11	34	3.2	1.4
	%	8.8%	32.4%	17.6%	8.8%	32.4%	100.0%		

I practice reading texts as much as possible.	Count	1	3	8	7	15	34	3.9	1.2
	%	2.9%	8.8%	23.5%	20.6%	44.1%	100.0%		
I can identify the main idea(s) and key points in reading texts.	Count	0	0	7	10	17	34	4.3	0.8
	%	0.0%	0.0%	20.6%	29.4%	50.0%	100.0%		
I use available resources to understand reading.	Count	0	0	8	9	16	33	4.2	0.8
	%	0.0%	0.0%	24.2%	27.3%	48.5%	100.0%		
I use logical thinking to understand and learning reading.	Count	0	0	4	7	21	32	4.5	0.7
	%	0.0%	0.0%	12.5%	21.9%	65.6%	100.0%		
I sort and organise new information through taking notes and summarising.	Count	0	2	9	11	10	32	3.9	0.9
	%	0.0%	6.3%	28.1%	34.4%	31.3%	100.0%		
I use prediction strategy in reading texts properly.	Count	0	4	5	7	16	32	4.1	1.1
	%	0.0%	12.5%	15.6%	21.9%	50.0%	100.0%		
I encourage myself to learn reading skills.	Count	1	0	6	3	21	31	4.4	1.0
	%	3.2%	0.0%	19.4%	9.7%	67.7%	100.0%		
Overall								3.89	0.83

Figure 3: Analysis of learning autonomy - cognitive and methodological



Analysis of learner autonomy Practical and motivational perspective of the questionnaire:

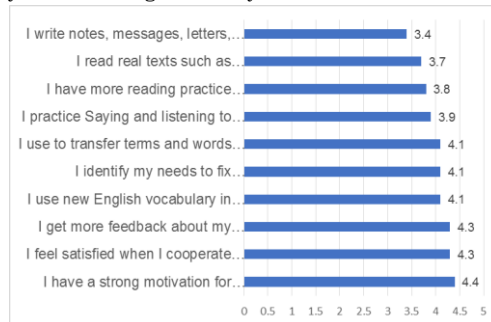
Section two of the questionnaire is about the practical and motivational perspective and represents the third hypothesis of the study: “cognitive strategies as a motivational device develop EFL students’ concept of learner autonomy. The results of the questionnaire section two items are as follows: “ I feel satisfied when I cooperate with others” scored a mean value of 4.3 and a standard deviation of 1.1. “ I have a strong motivation for learning to read” scored a mean of 4.4 and a standard deviation of 0.9. “ I have more reading practice opportunities” scored 3.8 with a standard deviation of 1.1. “ I get more feedback about my reading errors” scored 4.3 with a standard deviation of 1.0. “I read real texts such as newspapers, magazines, and stories” scored 3.7 and had a standard deviation of 1.3. “I use new English vocabulary in a sentence” scored 4.1 and had a standard deviation of 1.0. “ I practice saying and listening to new words in texts” scored 3.9. and had a standard deviation of 1.1. “ I identify my needs to fix problems of reading passages” scored 4.1 and had a standard deviation of 0.9. “I write notes and reports while reading texts” scored 3.4 and had a standard deviation of 1.4.

“ I used to transfer terms and words from English to Arabic” scored 4.1. and the standard deviation 1.1. The overall sum of the criteria scored was 4.00 and the standard deviation was 0.69. The following are Table (4) and Figure (4), which show the analysis of learning autonomy – a motivational and practical perspective, and the mean value per item.

Table (4) Analysis of learning autonomy – Motivational and Practical perspective

		Never	Rarely	Sometimes	Often	Always	Total	Mean	Standard deviation
I feel satisfied when I cooperate with others in learning reading.	Count	0	4	2	5	21	32	4.3	1.1
	%	0.0%	12.5%	6.3%	15.6%	65.6%	100.0%		
I have a strong motivation for learning reading.	Count	0	1	5	7	19	32	4.4	0.9
	%	0.0%	3.1%	15.6%	21.9%	59.4%	100.0%		
I have more reading practice opportunities.	Count	0	5	7	8	12	32	3.8	1.1
	%	0.0%	15.6%	21.9%	25.0%	37.5%	100.0%		
I get more feedback about my reading errors.	Count	1	0	7	6	18	32	4.3	1.0
	%	3.1%	0.0%	21.9%	18.8%	56.3%	100.0%		
I read real texts such as newspapers, magazines, stories.	Count	1	8	5	5	13	32	3.7	1.3
	%	3.1%	25.0%	15.6%	15.6%	40.6%	100.0%		
I use new English vocabulary in a sentence, so I can remember them.	Count	1	1	6	9	15	32	4.1	1.0
	%	3.1%	3.1%	18.8%	28.1%	46.9%	100.0%		
I practice Saying and listening to new words in texts.	Count	0	4	8	5	14	31	3.9	1.1
	%	0.0%	12.9%	25.8%	16.1%	45.2%	100.0%		
I identify my needs to fix problems of reading passages.	Count	0	1	8	11	12	32	4.1	0.9
	%	0.0%	3.1%	25.0%	34.4%	37.5%	100.0%		
I write notes, messages, letters, or reports during reading texts.	Count	3	6	7	6	10	32	3.4	1.4
	%	9.4%	18.8%	21.9%	18.8%	31.3%	100.0%		
I use to transfer terms and words from English to Arabic to compare the meaning and content.	Count	1	2	6	6	17	32	4.1	1.1
	%	3.1%	6.3%	18.8%	18.8%	53.1%	100.0%		
Overall								4.00	0.69

Figure (4) Analysis of learning autonomy-Motivational and Practical perspective.



The Correlation Analysis of the two variables

The researcher now is going to provide the results of correlation between the two tools to data collection: the two tests (Pre-test and Post-test) and the two sections of the structured questionnaire (cognitive and methodological - motivational and practice). Furthermore, the researcher anticipated that there should be a correlation between the two variables of the two tools of data collection. The researcher in this the research questions and hypotheses expected that the results of the pre and post-tests as

outcomes are interrelated to the outcomes of the questionnaire. On other words, the strong evidence is that the correlation results between the tests and the questionnaire should be statistically significant.

Results provide the following: the correlation between the two tests (pre-test and post-test) and the relation between the two sections of questionnaire (the first section: Cognitive and Methodological perspective) scored the correlation coefficient 0.31 with a P-value 0.088 and it is not significant. The other correlation is about the two tests (pre-test and post-test) against the motivational Practical perspective scored the correlation coefficient 0.07 with P-value 0.739, and also it is not significant.

The correlation between Cognitive and Methodological perspective and motivational and Practical perspective in the questionnaire scored a correlation coefficient 0.36 and a P-value 0.046, so it is significant. The Pearson correlation scored 0.31 and this value is the change in score. To sum up, the statistical results of the correlation between the results of the two tests and the questionnaire (Both sections) are statistically significant. The following tables and Figures show the results of the correlation between the two variables: the Tests and the Questionnaire. The first table provides the correlation in details as it appears in the statistical analysis. The second table is the same results of correlation but in brief.

Correlation analysis of Tests and Questionnaire in details

		Change in score	Cognitive & Methodological Perspective	Motivation & Practices perspective
Change in score	Pearson Correlation coefficient	1.00	0.31	0.07
	P-Value		0.088	0.739
	No of Students	32	31	28
Cognitive and Methodological	Pearson Correlation	0.31	1.00	.36*
	P-Value	0.088		0.046
	No of Students	31	35	32
Motivational Practices	Pearson Correlation	0.07	0.36*	1.00
	P-Value	0.739	0.046	
	N	28	32	32

*. Correlation is significant at 0.05 level (2-tailed).

The Correlation Analysis-Briefly

Variables	Correlation Coefficient	P-value
Test (Change in score) Cognitive and Methodological	0.31	0.088
Test (Change in score) Practices	0.07	0.739
Cognitive and Methodological + motivational and Practices	0.36	0.046

*. Correlation is significant at 0.05 level (2-tailed)

Correlation analysis of Tests and Questionnaire-Briefly

Variables	Correlation Coefficient	P-value
Test (Change in score) Cognitive and Methodological	0.31	0.088
Test (Change in score) Practices	0.07	0.739
Cognitive and Methodological + motivational and Practices	0.36	0.046

CONCLUSION

The study investigates the implementation of cognitive reading strategies (CRS) among EFL learners and how those reading strategies trigger their concept of learner autonomy (LA) from a cognitive and methodological perspective as well as from a

motivational and practical perspectives. The study aimed to enable the EFL learners to find their way to take charge of their own learning process to confront the difficulties that confront their learning English, and as a result of that, they tried the concept of learning autonomy in reading texts. The study also proposes to contribute to the sense of learner autonomy (LA) among EFL students at the university level by giving them a pretest, post-test, and intervention set of time with tasks in specific cognitive reading strategies. To sum up, the researcher concludes that the above results of the two variables of the study—the pre-test and post-test of the five cognitive reading strategies and the questionnaire—carried out and achieved positive statistical evidence.

To sum up, the researcher found that, there is no significant correlation between change in test score and motivational practices perspective (correlation coefficient = 0.07 and P value = 0.739). To sum up, the analysis found that there is a correlation significant in change in scores of the two test scores and also there is correlation significant between the sections of the questionnaire mentioned above, but this correlation does not mean that there is a correlation between cognitive strategies and the variables of the questionnaire. Thus, the research study succeeded to some extent in the way that when EFL students trigger or use cognitive reading strategies during reading text intervention inside or outside the classroom, they may trigger their understanding of the concept of learner autonomy in the way that there is a correlation between cognitive reading strategies and learner autonomy. Moreover, and even if there is no means of statistically significant relation between the results of test scores and the two variables of the questionnaire, the researcher wanted to say that cognitive reading strategies foster the concept of learner autonomy. Thus, the field is open to the following researchers to and studies to maintain that cognition knowledge fosters the concept of learner autonomy.

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