# Meta-Comprehension according to Academic Achievement of Fifth Secondary School Talented Students

**Dr: Fadhil Muhsin Al-Mayali[1], Zaman Shuail Al-Sultany[2]**

Babylon University-College of Education for Human Sciences-Department of Education and psychology, Iraq

**Abstract:** *The problem tackled in the research lies in students awareness of whatever related details to meta-comprehension and the way they use meta-comprehension strategies to solve problems they face when receiving information and using intellectual skills to receive , process and store information. The significance of the current research is taken from the significance of variables studied. Meta-comprehension ,hence fore, is cognitive activity which has an effect in learner's choice of their suitable learning style that develops student's efficiency in processing information. Meta-comprehension objectives aim at finding out about the following: Meta-comprehension level in the fifth's class talented students of the secondary school versus their ordinary peers.*

**Keywords:** beyond comprehension-academic-achievement students Outstanding

## 1. Research Problem and Importance

Is beyond the comprehension of most mental skills related to the educational process and most influential in the academic achievement of students and their success in various educational tasks, as the weakness which threatens the collection of students' academic, and may lead to failure in school life, especially in grades that rely on absorption larger, the students' awareness and comprehension skills (beyond the absorption), the researchers attribute to the students not to use the advanced cognitive strategies (National Reading Panel., 2004).

The omission of the students to use the skills beyond comprehension and strategies that enable them to increase the collection and make them aware of Bmakrthm where provide them with feedback what assets they have of understanding and comprehension (Gargiulo, 2006), so you see the researcher that the problem lies in the students' awareness of everything related to what's behind absorption as well as how they use strategies beyond comprehension in solving the problems they face when they receive the information and use of mental skills in receiving, processing and storage.

On the basis of that fares researcher Exploratory Study on a sample composed of supervisors jurisdiction and managers, teachers and the students themselves and of their number (50), where the researcher directing an open question, which is: - Is there a weakness or decline in the level of understanding and comprehension of the students? The results showed the presence of low the level of understanding and comprehension; and the researcher noted that most students do not have sufficient knowledge to absorb the information learned as with the random presence in their studies, lack of scientific plans and strategies, and this was confirmed by competent supervisors and teachers

The concept of metacognition Metacognition a cognitive theory components in the psychology of contemporary and found this concept of significant interest to both theoretical and practical, that beyond the knowledge of academic achievement improved, because it conveys the responsibility to monitor learning from teachers to learners themselves and work on the development of motivation positive among students , The importance beyond the knowledge of its close linkage with the issue of Psychology main educational, namely learning (Learning) if it is beyond the knowledge essential step in the cognitive development of learning, allowing him access to the strategies and tuned, When realizes learner strengths and weaknesses in learning, and when he contemplates the thought processes it has, it can make the learning process easier to display and more effective, and can choose the best way to learn (Yang, 2002 Jarwan also finds that beyond the knowledge of the concept indicate the operations of higher-order thinking that control the direction and management to solve the problem and decision-making activities, and keep the individual's awareness of himself and others in the course of doing tasks that require processing of information, a kind of conversation with oneself and thinking about thinking through Planning for performance monitoring and implementation of the plan and evaluation (Jarwan 0.1999, p. 427).

Multi beyond comprehension has gained the attention of researchers in the field of cognitive psychology as it is one of the topics closely related to changes in the times since it is, the best way to facilitate students' learning and enables them to how to deal with scientific article and use the method that is appropriate learner capabilities and use strategies that increase the absorption and I've been beyond the knowledge of the study by many researchers in the past few years who have confirmed that the interest in assimilation led to emphasize the role of awareness increase metaphysical knowledge-based cognitive and motivational processes of the learner, the researchers confirms that awareness of the pre-requisite of the ability to control cognitive activities in the course of learning and examine if require cognitive skills certain Kadrack ideas main read the information and self-assessment to monitor absorbed, so is awareness of understanding of these skills and use them very necessary to

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accommodate it to the learner uses strategies to improve absorbed must go to beyond the information contained in the scientific article which it awareness Bmaura knowledge.( Commander, Moore, Zabrucky, 1997).

It has recently emerged many of the concepts related Bmaura knowledge of which the concept beyond comprehension (Meta comprehension) which refers to the ability of the learner to control the degree of absorption of information and understand why absorb and employ appropriate strategies to address the failure of assimilation failed, and is beyond comprehension strategies are necessary to accommodate which has an essential requirement it helps students to make them good absorption and intellectuals active and successful learners (Fllavel, et al, 2002).

Perhaps the interest in the study beyond comprehension and Abzlouna students of the activities and operations of thought during the reception of information comes consistent and supportive of what he sees some of them to reach the student fairly aware of what you learn from science and knowledge will not be enough units to reach the qualitative level of learning, and that the way to do this requires that the It has a degree of awareness beyond comprehension strategies to achieve this level of comprehension of what has been learned and the acquisition of information and data and also awareness of stroke treatment methods for this information (Barbara, 2007).

Results have shown some studies conducted on the subject beyond comprehension to a positive statistically significant awareness among students Bmaura absorption and use it from the methods and processes of knowledge and remind them of the extent of information and data, use, and employed in the production of knowledge link (Flavel, 1979, 1981)

Occupies the subject of awareness strategies for learning in general and skills beyond comprehension particularly great importance in the transition of students from quantitative learning to qualitative learning, that is, choose the information you provide them with the information accurately not receive a huge amount of information that may distract absorption has (Rawson, Dunlosky & McDonald 2002).

Third: Find targets
Recognition
1:- predict Bmaura absorption according to the attainment of Akkad fifth grade preparatory outstanding students.

Fourth: Borders Search
The current research is determined by the students of the fifth preparatory grade outstanding for the academic year (2014/2015) in the center of the province of Babylon.

## 2. Research Objectives

**I. Meta comprehension-: - beyond comprehension**
Oxford sees beyond comprehension that helps learners to guide themselves during a reception of knowledge and absorb the information themselves and to encourage them to integrate into the learning situations in a more activity and effectiveness (Oxford, 1990).

Breton and his colleagues also noted that beyond the comprehension is directly linked to the acquisition of knowledge and the prosecution skilled self-efficacy affecting the acquisition Breton, at al, 2000).

But Lin indicates that the person is beyond comprehension awareness of the status of assimilation has included monitoring the understanding and use strategies to support understanding died educated (Lin, 2007).

The researcher believes that beyond comprehension: Is the knowledge level of the learner to understand and identify the strengths and weaknesses of the scheme aimed at reviewing and regularly self-activity and the promise of cognitive skills and strategies define learning methods and show the behavior of the learner who is aware of its content knowledge.

Procedural definition beyond comprehension: is the degree obtained by the student through his answer on a scale beyond comprehension**.**

Academic achievement: Is the pursuit of annual student testing materials studied in the fifth grade science

## 3. Importance of the Research

Also, the subject beyond comprehension fertile source of knowledge production and foreign countries focused on studying the subject intensive study, either in the Arab countries, the studies on the subject are almost confined study (Al-Barjas, 2010) and study (Zahrani 0.2014) and study (Alwan, 2011) either At the local level it would be a breakthrough for Research Find other covers are in line with the importance of this topic.

Baker also noted that beyond to accommodate contribute to access to new ideas be significance in that it gives solutions and create opportunities to solve problems in the educational reality and thus contribute to the payment of scientific research (Baker, 2003)

Also, Flavell and Uelleman confirm that there is a correlation between beyond comprehension and the ability to remember, knowledge is Bmaura absorption play an important role in the production of associated remembering behavior and modify it (Flavell, J. & Wellman, H.1977)

Some empirical research results have been confirmed in this framework the possibility of teaching students at various levels of education beyond comprehension strategies and by following the methods of advanced learning focused on student participation in learning.

As seen (Durkin) that students spend a lot of time to answer questions from teachers and doing homework classroom and that many teachers spend a lot of time to absorb the students test more than what they spend on education absorption so see psychologists need to teach students the skills and strategies, which is a key component to absorb because the

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students were not able to absorb knowledge, unless they have knowledge of these skills and strategies (Baker, 2003; Yang, 2002).

In (1979) launched the world (Flavell Flavell, J, 1971) beyond comprehension as part of Beyond the knowledge Meta cognition)) which varied fields at the hands of this world, and beyond the knowledge is misleading which falls below metaphysics, all these concepts are looking at the possibility of moving cognitive processes step forward in self-reflection and discussion of self-development and the level of the individual thinking and raising the level of cognitive operations (Abu Gado 0.2007).

## Beyond the Concept of Assimilation

That beyond the absorption refers to the ability of the learner to control the degree of absorption of information and employ appropriate strategies to address the failure of assimilation because it helps the learner to the good absorption and known beyond comprehension as one of the patterns of metaphysical thinking a knowledge which includes knowledge and awareness of the strategies employed by the learners to absorb information in the course of exposure (Mier, M, 2003; 770-774).

Also refers Harris)) that learners who are vulnerable in skills beyond the absorption finish to save the information most of the time without accommodating while we find that learners who possess skills beyond the strong absorption using treatment strategies when they are not assimilation such as restoring reading or linking parts the text or to summarize the summary of the subject and try to tie the previous knowledge Harris, K, 2007; 116).

In this regard Dunlosky confirms that the reader should be aware of and be absorbed has the ability to control absorbed the information to become aware of the failure in absorption Dunlosky, D, 2010).

In that regard Fitzgerald said little beyond comprehension easier for the reader to understand and control consciousness strategies that help in understanding the process of Fitzgerald, 2005)

It refers & Hannafin Osman to be beyond the comprehension Created head beyond the knowledge of the skills which has an important role in learning in which self-regulation, as well as identifying the lack of or weak absorption and repaired by (organizing Osman, M & Hannafin, M, 2009; 5-13)

The one who Brown to see beyond the knowledge consists of two parts: - knowledge of the cognitive sources (Knowledge about Cognitive Resources) and self-regulation of knowledge (Knowledge of Self-regulated), which is the students' awareness of their knowledge in learning situations while The self-organization of knowledge to control the problems of learning and that The major source beyond comprehension (Brown, A, 2003) .

Cognitive psychologists argue that beyond the comprehension affected by what is behind knowledge in

general, there are two operations beyond Marafatin are linked to assimilation are monitoring (Monitoring) and control (Control), and see Nelson (1996) that the skills beyond comprehension allow the reader to monitor the absorption processes (Nelson, T, 1996; 102-116, Saunders, N & Burns, R, 2007)

Dunlosky that confirms beyond comprehension improves learners' ability to control the degree of their understanding of the information, including the process of organizing the learner's own activities to monitor his understanding If the learner did not understand the current step no hope of understanding the subsequent step learner that appears low beyond comprehension level may not know that he does not know Thread and that the erroneous practice serve as a pool of knowledge is correct (Dunlosky, J, 2010)

## Beyond Comprehension Skills

Is beyond the comprehension skills of one of most influential factors in the construction of cognitive development and formats intellectual among students at different learning stages, and what were the skills beyond comprehension in essence analytical process interactive constructivism, this broad understanding will be achieved only if the availability of learners deal of awareness using require of mind activities and operations performance today accompaniment, and even be able to absorb what they receive from a huge amount of information sensual of the environment, for this, the inter skills and capabilities must be available to have Kakaddrat knowledge associated with the way they are being treated in this information and cognitive skills related to memory. (Craften, 1983)

This has been confirmed by a study of all Flavell & Wellman that there is a reciprocal relationship between beyond comprehension and the ability to remember, knowledge is Bmaura absorption play an important role in the production of associated behavior and modify behavior. (Flavell, J, & Wellman, 1977)

The interest in the ability to predict or to judge educated in absorption is the focus of the subject beyond comprehension President is that I appreciate very important for self-regulation of the study, when predicting the students that they will perform perform poorly in test what they might decide to use strengthen it strategies, such as using, for example, keywords strategy, Psychologists assert that self-regulation in learning plays an important role and The significant efficacy in the study and then lead to better remember (zhao & Linder, 2008)

To accommodate the particular piece of information the learner to receive that information and then stores it after decoded just then carries out a complex construct meaning her and with the progress in the revision Valmakrh operating stores next hints of the sources of such information is more than a sense even to reach the meaning of the completed and includes receiving knowledge on a number of skills that work on working memory, namely

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1) vk individual coding of information
2) Engage in a sense, the meaning of words units and more meaningful representation
3) Linking information through prior knowledge
4) To focus attention on the main ideas
5) Building mental images
6) Construction of new knowledge and the integration of information associated with representations in long-term memory

All of these components are necessary to accommodate the dependent exceptional on both the storage and functions of processing in working memory, and that beyond the comprehension depends on working memory capacity to keep the information that facilitate the absorption of knowledge, and sees (Oxford) that beyond the comprehension strategies that help learners directing themselves while receiving information and help them to absorb knowledge and learning on their own and Chjhm to integrate into learning situations in a more activity and effectiveness
Oxford, R, 1990, Dehn, 2008; Shinji & Kenji, 2013)

## Axis II Previous Studies

Among the studies that have examined the impact beyond the comprehension of learning are Thiede, Anderson, & Therriault, 2003 and study and Kornell & Metcalfe, 2006 and the study of Metcalf, 2002, which confirmed the effect beyond comprehension to learn and Khossa with respect to self-regulation of information by the learner, the self-regulation in Learning can choose the strategies required to understand the information .

The study of each of Dunlosky & Thiede, 1998 and study Thiede, 1999 and study Thiede & Dunlosky, 1999, they stressed the impact beyond comprehension to learn from the reduction of inequality and reduce the cognitive dissonance between prior knowledge and current learner hand, they are so stressed the need to use more than one style At the reception in this knowledge of how they can reduce their cognitive dissonance and dispersion in the vast amount of information reception .

The study Stange, 1993, York, 2006 and 2012 Alwan study, these studies aimed to detect the level beyond comprehension and relationship to the collection of reading among a sample of students, and investigate how different this relationship depending on gender and academic level.

As for strategies beyond comprehension van There are many studies conducted in this regard, sees Oxford that beyond the comprehension strategies that help learners in self-orientation during learning, and encourage them to integrate into the learning situations in a more activity, also helps them to absorb knowledge relying on themselves, Oxford, 1990.

The York study 0.2006 study aimed at detecting the relationship between awareness of strategies beyond the comprehension and performance of reading comprehension texts literary, scientific, The results showed the presence of correlation is positive statistically significant between awareness strategies beyond comprehension and performance reading any greater awareness Bmaura absorption was reading comprehension the best I have recommended Researcher to conduct similar studies on other stages of the study .

As indicated results of the study conducted by Lin, Moore, Zabruky, 2000 Results indicated that the knowledge level beyond comprehension contributes to predict significantly assimilation Reading have, as study results indicated a lack of statistically significant differences between the young and the elderly in the level beyond comprehension .

Believes researcher said the results of some of these studies are consistent and supportive of what he sees most researchers that the students' awareness of strategies beyond comprehension them are making a remarkable success in reading comprehension standards compared with those least aware of these strategies and to all academic levels knowing that the awareness of these strategies is increasing the more progress the learner in the learning stages Kring 0.2004 researcher of this study has benefited in terms of increased emphasis on the role of absorption beyond the reality of education in the Arab world and Iraq in particular, and to increase awareness of its importance and the importance of the educated use by learners strategies or whether outstanding Adan alike

## 4. Research Methodology

Research methodology and procedures of this chapter includes a presentation of the approved methodology in research and actions that have been undertaken and which were to define community search and selection of the sample, and the preparation of the search tool and then processing the data obtained from the application of the tool and treated statistically appropriate statistical means .

### First: The Research Methodology
Researcher descriptive approach used to being the best method to the nature of this research and achieve its objectives.

**Second, the research community:** The research is intended to society all individuals who seek researcher to circulate the results of his study them (Olive, 2005). Accordingly, the society Current search their fifth scientific students (2014-2015) and to study the morning and to identify the research community, the researcher visited the unit statistics and planning in the education of Babylon under the book to facilitate the task of the College of Education for Human Sciences to the breeding of Babylon and therefore were identified community Find reaching Find community (155) students.

**Third: the research sample:** sample was selected purposely Find a Waeli School of distinct, which includes 95 students, which represents the proportion (60%) of the research community

**Fourth: Adata Search:**
First: - scale beyond comprehension: The researcher has built a tool to measure beyond the comprehension of the following reasons:

1) That measure, which was prepared by researchers Moore, D, Zabrucky & Commander year (1997), a measure is disproportionate with the research community knowing that the researcher may have benefited from this measure too much, especially with regard to the removal of this measure

2) The concept has evolved beyond the assimilation theory and its expansion during this period and especially Maitalq being a particular concept, the concept of reading literacy also has evolved

3) Environmental variation to be applied researcher by this measure, it required the construction of new tool

4) Few paragraphs researcher, she believes they do not cover the dimensions of this scale Vaguetdy increase paragraphs so special all these justifications paid Balbagesh to build a new tool based on the literature and previous studies so special variable where the validity and reliability available

Fifth: characteristics Alsekoumtrah to search tool: specialists agree in psychological and educational measurement on the validity and reliability of the most important Alsekoumtrah characteristics that must be met in psychological measure whatever the purpose of Astamalh.az that the validity and reliability of the core in psychological measurement concepts and are the very foundations of Duty coexist in scale in order to be a valid use (Faraj, 1997: 34)

## Scale beyond comprehension

First: Believe scale: honesty is the most important characteristic of psychological measurement because it refers to the validity of the use of degrees of the scale to carry out certain explanations (Abu Allam, 2009) has been verified the veracity of the current indicators measure the following ways

-Virtual honesty: indicates the virtual to the general appearance of the scale of honesty, has been obtained through the presentation of the paragraphs of the scale on a group of arbitrators to judge the validity of the paragraphs in the measure to be property measured (Imam et al., 1990) .ually light of the views of the arbitrators amended paragraphs that referred to her , in order to show appropriately and plausible, and to verify the virtual honesty paragraphs scale display scale on (17) of the arbitrators who specialize in sections educational and psychological sciences at universities in Babil, Baghdad, Al Qadisiyah, Karbala and Kufa to demonstrate the validity of paragraphs and belonging to the domain and edit or delete any paragraph they see Mnasph.uand extract percentage afternoon that all experts unanimously agreed on the paragraphs of the scale, except for some special drafting notes and thus accepted by all paragraphs (95%) construction sincerity: described as the most common types of honesty representation of the concept of honesty, sincerity, which is sometimes called the concept or premise and sincerity configuration refers to the measurement of the extent of the psychological measure to create a hypothetical or a particular concept myself (Lehman, 2003). The concept of construction sincerity or genuineness configuration premise to the relationship between the test

result and the theoretical concept that the test is designed for standard such as: the concept of intelligence, anxiety, innovative ... etc., in other words, the construction Believe it aims to determine the hypothesis configurations that is attributable to the performance variation in the tests any that these configurations premise is that the focus of attention and not test scores or test the behavior of the individual (Allam, 2000). The construction sincerity honesty formats more important because it raises the fundamental question of honesty "Why test measures already?" In other words: "it reflects the sincerity of construction degree to which measures the test configuration hypothetical hoped for (G, et al., 2012). Has been checked this kind of honesty to scale beyond comprehension through statistical analysis of the paragraphs of the indicators in a way the two terminals and the relationship of the degree of each paragraph mainly college and relationship Paragraph domain and the ability of the paragraph on discrimination

It was to verify the authenticity of the building through the following indicators

(A) the discriminatory power of the paragraphs of the way the two terminals are this way of individual discrimination on the difference in performance between the two groups index account has reached Kelley (Kelley, (1939 to better percentage of individuals should be included in each of the two groups in order to be more accurate discrimination coefficient which the adoption rate (27%) of the individuals in each of the two terminals and the exclusion ratio (46%) and Central (Allam, 2000). For the purpose of finding the discriminatory power of the paragraphs of the scale in a way the two terminals researcher followed the following steps:

1) All respondents correct forms of (95) form
2) Find the total score for each form of the forms of (95)
3) Order forms in descending order according to the total score for each form 3:-
4) Choose the proportion (27%) of the forms with the highest grades of (47) form to represent the Supreme Group, and the proportion (27%) of the forms occurring at the lowest grades of (47) form also to represent the lower group, bringing the total number the forms are subject to analysis (94) form
5) Application samples t test t- test for two independent samples to test the significance of differences between the upper and lower sets of each paragraph of the scale, and promised T value calculated indication of discrimination each paragraph by comparing the value of T spreadsheet, as it has not fallen four paragraphs to its inability to discrimination and Value T less than the calculated value spreadsheet has reached the number of paragraphs (31) paragraph

The index II correlation degree of each paragraph mainly College of scale in the light of this indicator, is to keep the paragraphs that are degrees of correlation college degree of the scale Ahsaiaa.olaejad this indicator used Pearson correlation coefficient function coefficients, and fell one paragraph, because the value of (t) calculated less than value (t) amounting to spreadsheet (0139) when the level of significance (0.05), bringing the number of paragraphs in its final form beyond comprehension (3) items.

Thania- Persistence: The persistence of the most important qualities of a good test, that the stability of the test means that the test gives the same results if re-applied to the same individuals in the same circumstances, and that this is measured statistically calculates the correlation coefficient between grades, and this also means that the measuring instruments on a high degree of precision and perfection and consistency (forward and others, 1990: 145) .oon hard test should give the same results as have been applied and should not give different results when re-applied (Issawi, 1985). The researcher calculates the reliability coefficient in two ways

1: The method of re-testing (stability factor): This method requires the same test on the same group of students applying at different times, and to find the correlation coefficient between the grades in Marty application, and there is usually an interval between the two times, and supports this interval on the purpose of the use of the test, The more time interval decreased the expected value of the coefficient of stability, and that the possibility of intervention is adapted factors between Marty application can Tather in the performance of students, and describes this way the consistency of scores of students in both times (Allam, 2009) was the test on a sample of (40 dish ) students randomly selected from two schools in the sample for the research and after (14) days of the test on the same sample dish again an appropriate period because if the short period between the two applications, the possibility that the respondent student remembers answer that mentioned in the first time and when the time too long a real change in the behavioral characteristic measured by the test might occur (Zobaie et al., 1987). To extract the stability of the scale used Pearson correlation coefficient, reliability coefficient reached in a way re-test of the scale beyond comprehension (0.80), a high stability coefficient

)B) the internal consistency: equation Alpha - Cronbach: Cronbach's alpha method is used when an individual answers the vertebrae with a gradient scale degrees (Allam, 2000). Therefore the reliability coefficient calculation to scale beyond comprehension according to this equation and for the same sample stability, has reached (0.72).

Statistical methods: statistical researcher hired the bag (SPSS) for processing and statistical data as follows:
1: Samples t test Independent- Samples T Test
For two independent samples to find the discriminatory power in a way the two terminals of the paragraphs of the scale.

2: Pearson correlation coefficient (person's correlation coefficient) to find

A) the relationship between the degree of connectivity paragraph the total score of the scale.
D- value reliability coefficient in a way re-testing of the meter
C) Cronbach's alpha coefficient to find the value of reliability coefficient of the scale

## 5. Results
Display search and interpretation of results and discussion

I. Results: This chapter includes Showing results that have been reached in accordance with the goal of current research and discussed and interpreted in the light of the theoretical framework and previous studies up to the Conclusions and Recommendations The proposals then. Aim of the research: predicting Bmaura absorption on according to academic achievement among fifth-grade preparatory students Alemtemizin.olthakiq this goal, the researcher apply beyond comprehension measure and calculate averages and standard deviations to the fifth grade preparatory students Outstanding, among a sample search of $ (95) students, as the number of V students preparatory Outstanding in the province of Babylon (155) and after the data dump and processed statistically found the arithmetic mean and standard deviation of the scores of students, as the arithmetic average (31.38) and a standard deviation of (5.41) degrees and by comparing this average with the average premise of the scale of (28) To find out denote the difference between the average and the average real premise for members of the sample used samples t-test T-test of one sample

## 6. Second Conclusions

Edge mechanism in the light of the results of the researcher can be concluded Mayati:
1) Predictable varying students by knowing what assets they have from beyond comprehension

Third: Recommendations:
In light of the findings of the researcher of the results of the researcher recommends the following:
2) Necessity beyond comprehension strategies among students because of its role in increasing the collection have development.
3) Increase seminars, conferences and educational workshops to train the learners to use beyond comprehension strategies.
4) Benefit from beyond the absorption used in the current study in the diagnosis level beyond the comprehension of the students measure.

## 7. The Proposals

1) Ajra study aimed at detecting beyond the comprehension of other scholarships to middle stages Kalmrahlh and undergraduate.
2) Conduct a study aimed at detecting beyond comprehension and its relationship to other variables.
3) Conduct a study on the relationship beyond the absorption and methods of learning among students, especially cognitive styles.
4) Increase students' awareness of the importance of the ordinary, especially beyond comprehension strategies to increase the collection they have.

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