A Training Program Based on Meta-cognitive Strategies to Measure its Impact on Developing Lexical knowledge and Critical Reading Skills of Saudi Students Majoring in English

Babiker, Amna Ahmed Abdallah; Elsheikh, Fatima Ibrahim M.; Abu Alhassan, Abla Khalaf

English Department – Faculty of Arts – Taif University Khurma Branch- KSA
*__Correspondent__: Babiker, Amna Ahmed Abdallah e-mail: amansi_us@yahoo.com

Abstract

The present study aimed at measuring the impact of a training program based on Meta-Cognitive strategies (MCS) on lexical knowledge and critical reading skills. The researchers hypothized that after completing the training program students will gain better lexical knowledge and develop their level of performance in reading comprehension. Two groups of level four students in English language program were involved in the experiment; (experimental and control), 25 students each. Only the experimental group received meta-cognitive strategy training during the Advanced Reading course. Both groups were subjected to pre - post tests. Results were amazingly significant; as the experimental group outperformed their counterparts in both reading skills and lexical knowledge tests. The main finding of this study is that; there is a positive correlation between the use of MCS and students mastering of excellent abilities in reading skills and lexical knowledge, which proved the above hypothesis correct.

Keywords: Saudi university-students, Metacognition, Meta-cognitive strategies. Training Program critical reading skills

{**Citation:** Babiker, Amna Ahmed Abdallah; Elsheikh, Fatima Ibrahim M.; Abu Alhassan, Abla Khalaf. A Training Program Based on Meta-cognitive strategies to measure its Impact on Developing Lexical knowledge and Critical Reading Skills of Saudi Students Majoring in English. American Journal of Research Communication, 2016, 4(5): 1-26} www.usa-journals.com, ISSN: 2325-4076.

Introduction

Metacognition is defined as "cognition about cognition", or "knowing about knowing". It comes from the root word "meta", meaning beyond. It can take many forms; it also includes knowledge about when and how to use particular strategies for learning or for problem solving. There are generally two components of Metacognition: knowledge about cognition, and regulation of cognition. This higher-level cognition was given the label metacognition by American developmental psychologist John Flavell (1979).

Metacognition includes at least three different types of metacognitive awareness when considering metacognitive knowledge: **Declarative knowledge**: refers to knowledge about oneself as a learner and about what factors can influence one's performance. Declarative knowledge can also be referred to as "world knowledge". **Procedural knowledge**: refers to knowledge about doing things. This type of knowledge is displayed as heuristics and strategies. A high degree of procedural knowledge can allow individuals to perform tasks more automatically. This is achieved through a large variety of strategies that can be accessed more efficiently. **Conditional knowledge**: refers to knowing when and why to use declarative and procedural knowledge. It allows students to allocate their resources when using strategies. This in turn allows the strategies to become more effective. Similar to metacognitive knowledge, metacognitive regulation or "regulation of cognition" contains three skills that are essential. **Planning**: refers to the appropriate selection of strategies and the correct allocation of resources that affect task performance. **Monitoring:** refers to one's awareness of comprehension and task performance. **Evaluating:** refers to appraising the final product of a task and the efficiency at which the task was performed. This can include re-evaluating strategies that were used

By practicing and applying Meta-cognitive strategies (MCS), students will become good readers, capable of handling any text across a curriculum. Because metacognitive strategies appear obvious, some teachers might believe that students in intermediate grades begin the school year cognizant of these strategies and experienced in using them. The truth is, most students are unaware of the

metacognitive process. Yet only through “thinking about thinking” and using metacognitive strategies do students truly learn. With that in mind, consider the following three main reasons to teach metacognitive strategies.

Cognitive strategies are the basic mental abilities we use to think, study, and learn (e.g., recalling information from memory, analyzing sounds and images, making associations between or comparing/contrasting different pieces of information, and making inferences or interpreting text). They help an individual achieve a particular goal, such as comprehending text or solving a math problem, and they can be individually identified and measured. In contrast, metacognitive strategies are used to ensure that an overarching learning goal is being or has been reached. Examples of metacognitive activities include planning how to approach a learning task, using appropriate skills and strategies to solve a problem, monitoring one’s own comprehension of text, self-assessing and self-correcting in response to the self-assessment, evaluating progress toward the completion of a task, and becoming aware of distracting stimuli.

Critical reading (CR) means reading with the goal of finding deep understanding of a material, whether it is fiction or nonfiction. It is the act of analyzing and evaluating what you are reading as you make your way through the text or as you reflect back . CR is a form of language analysis that does not take the given text at face value, but involves a deeper examination of the claims put forth as well as the supporting points and possible counterarguments. The ability to reinterpret and reconstruct for improved clarity and readability is also a component of CR. The identification of possible ambiguities and flaws in the author's reasoning, in addition to the ability to address them comprehensively, are essential to this process. CR, much like academic writing, requires the linkage of evidential points to corresponding arguments.[1] Wikipedia, the free encyclopedia. As acknowledged by a number of scholars . "...a story has as many versions as it has readers. Everyone takes what he wants or can from it and thus changes it to his measure. Some pick out parts and reject the rest, some strain the story through their mesh of prejudice, some paint it with their own delight."— John Steinbeck, The Winter of Our Discontent (1961).

CR means engaging in what you read by asking yourself questions such as, 'what is the author trying to say?' or 'what is the main argument being presented?'CR involves presenting a reasoned argument that evaluates and analyses what you have read. Being critical, therefore - in an academic sense - means advancing your understanding, not dismissing and therefore closing off learning. To read critically is to exercise your judgment about what you are reading – that is, not taking anything you read at face value. When reading academic material you will be faced with the author's interpretation and opinion. Different authors will, naturally, have different slants. You should always examine what you are reading critically and look for limitations, omissions, inconsistencies, oversights and arguments against what you are reading. In academic circles, whilst you are a student, you will be expected to understand different viewpoints and make your own judgments based on what you have read.CR goes further than just being satisfied with what a text says, it also involves reflecting on what the text describes, and analyzing what the text actually means, in the context of your studies

Critical Thinking is an Extension of Critical Reading . Thinking critically, in the academic sense, involves being open-minded - using judgment and discipline to process what you are learning about without letting your personal bias or opinion detract from the arguments. Critical thinking involves being rational and aware of your own feelings on the subject – being able to reorganize your thoughts, prior knowledge and understanding to accommodate new ideas or viewpoints. Critical reading and critical thinking are therefore the very foundations of true learning and personal development.

Lexical knowledge and Lexical acquisition is central to Second Language Acquisition (SLA) as vocabulary is basic to communication, and often regarded as the greatest source of problems by language learners (Segler et al., 2002). The importance of lexical knowledge is also stressed by the fact that grammatical errors still result in understandable structures, while vocabulary errors may disrupt communication (Gass,1988).

Vocabulary knowledge can be accessed from a quantitative and qualitative point of view. The former (breadth of knowledge) is related to the question, "How many words does an L2 learner need or how much vocabulary does an L2 learner know?" The size of the English lexicon has been estimated at 54,000 word families for the language as whole, and 20,000 word families for a university graduate. Studies show that an average child adds about 1,000 word families per year, and this amount is similar for a second language learner who needs to learn at least 2,000 high frequency words (West, 1953). However, recent research has shown that this amount is unsatisfactory for successful communication and reasonable text comprehension and advise to focus on the number of 3,000 high frequency words as an immediate priority (Nation and Waring, 1997).

Lexical competence is far more than the ability to identify a given number of words. The process by which learners acquire a great deal information about a word takes place gradually over a long period of time, and it is very elaborate (Far, 2006). Chapelle (1994) proposes to use three components to describe vocabulary ability: the context of vocabulary use, which can influence lexical meaning; vocabulary knowledge, which include vocabulary size, knowing of word characteristics and lexicon organization, and fundamental processes; and meta-cognitive strategies for vocabulary use, which are also called 'strategic competence'.

SQ3R is an acronym and stands for; Survey**,** Question, Read, Recall and Review. SQ3R is a well-known strategy for reading. SQ3R can be applied to a whole range of reading purposes as it is flexible and takes into account the need to change reading speeds

Research shows that meta-cognitive skills can be taught to students to improve their learning (Nietfeld & Shraw, 2002; Thiede, Anderson, & Therriault, 2003).

Constructing understanding requires both cognitive and metacognitive elements. Learners "construct knowledge" using cognitive strategies, and they guide, regulate, and evaluate their learning using metacognitive strategies. It is through this "thinking about thinking," this use of metacognitive strategies, that real learning occurs. As students become more skilled at using metacognitive strategies, they gain confidence and become more independent as learners.

Individuals with well-developed metacognitive skills can think through a problem or approach a learning task, select appropriate strategies, and make decisions about a course of action to resolve the problem or successfully perform the task. They often think about their own thinking processes, taking time to think about and learn from mistakes or inaccuracies (North Central Regional Educational Laboratory, 1995). Some instructional programs encourage students to engage in "metacognitive conversations" with themselves so that they can "talk" with themselves about their learning, the challenges they encounter, and the ways in which they can self-correct and continue learning.

Moreover, individuals who demonstrate a wide variety of metacognitive skills perform better on exams and complete work more efficiently—they use the right tool for the job, and they modify learning strategies as needed, identifying blocks to learning and changing tools or strategies to ensure goal attainment. Because ***Meta-cognition*** plays a critical role in successful learning, it is imperative that instructors help learners develop metacognitive**.**

Teachers who use meta-cognitive strategies can positively impact students who have learning disabilities by helping them to develop an appropriate plan for learning information, which can be memorized and eventually routine. As students become aware of how they learn, they will use these processes to efficiently acquire new information, and consequently, become more of an independent thinker**.**

Materials and Methods

This is an experimental study as it mainly derives its data by processes of teaching, testing, questioning and recording results. Subjects are put under investigations to check and measure the effectiveness of using Meta- cognitive strategies in teaching EFL on improving their reading and lexical skills.

The entire population of this research is; the university students who major in English language in Saudi Arabia. The Participants in this study are the female students in Khurma branch -Taif

University; in the Western Area of country. Two groups at level four in the program of 'English Language and Literature' were put under the experiment; the experimental group who received knowledge and training in using Meta - cognitive strategies in reading and dealing with lexicon items. The other group was taught in the traditional method.

The researchers in this respect find it fair enough to measure the study hypotheses through Pre - post test in reading and lexical knowledge, which was supervised and checked by a panel of experts as follows:

1. A pre-post test in Critical Reading Skills (Appendix A), consisted of a passage with 17 items that test; critical reading skills including the ability to identify the main idea and the supporting details, use graphic organizers, make inferences, identify the author's opinion and summarize the text:

2. A pre-post test in Lexical Knowledge (Appendix B) used for two purposes: as a pre-test to assign students standards both experimental and control groups. And a post-test to evaluate the effectiveness of the treatment on developing students' lexical knowledge also applied to the two groups.

Each one is a 25 item multiple-choice test of vocabulary which was prepared by the researchers. The items in this test were mainly selected from the new lexical items taught and exposed to students during their courses. Time allowed for this test is (60) minutes. The total score of the test was 25.

Time allowed for this test is (60) minutes. The total score of the test was 30. The tests were used in both the pre and post-tests .

A training program was prepared and the instructor who carried the experiment was given a teacher's manual, the students were supplied with a text leaflet.

In running the study; 25 copies of the pre-test are distributed to each group of the study subjects. After collecting their responses, results were kept to be compared with the post test results. The experiment started by training the experimental group using the manual prepared by the researchers to use meta-cognitive strategies and the students' leaflet, while the other group received no such training. The experiment lasted for two months. Finally, the post-test was applied to both groups, corrected and set for analyses.

The teachers, who teach both the experimental and the control groups are teaching assistants with bachelor's degree in English language and literature, had a qualified teacher status. The teacher who teaches the experimental group had undergone some training in meta-cognitive strategies the other one who teaches the control group was not exposed to such training at all and was told to teach the class in her usual way. Both teachers were requested not to interact with each other regarding their methods of teaching so as not to affect the outcomes of the meta-cognitive training.

The data collected by the two sets of tests (pre-post) of both groups were computerized and analyzed using the T- Test paired Samples Statistics and Paired Sample Tests.

Results and discussion

Hereby are the results obtained by the administration of the programme

Table 1. T-Test for Experimental Group pre -post test Critical Reading

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre	7.2000	20	2.91277	.65131
	post	12.4000	20	4.07043	.91018

Paired Samples Test

		Paired Differences			t	df	sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	pree - post	-5.20000-	3.87434	.86633	-6.002-	19	0.000

Table1: shows the result of the Experimental group for the pre -post test in Critical Reading skills. The result of the test shows the significant difference between the post and pre test, i.e. the experiment.

Table. 2: T-Test for the Control Group - pre -post test Critical Reading

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	9.05	20	4.110	.919
	Post	9.55	20	4.148	.928

Paired Samples Test

		Paired Differences			t	df	sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	pre – post	-.500-	4.161	.930	-.537-	19	0.53

Table2: shows the result of the Control group for the pre -post test in Critical Reading skills. The result of t test for the control group shows no insignificant difference between pre and post test

Table. 3 T-Test Control – Experimental post test - Critical Reading Skills

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post	9.7000	20	4.48506	1.00289
	post2	12.4000	20	4.07043	.91018

Paired Samples Test

		Paired Differences			t	df	sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	post - post2	-2.70000-	4.87852	1.09087	-2.475-	19	0.023

Table 3: shows the result of the Control-Experimental group for the post-post test in Critical Reading skills. There is, also, a significant difference between post test of the two groups: (control) and (experimental) because the sing(0.023) value is less than the standard level of significance (0.05).

Table 4: T-Test - Experimental Group Vocabulary Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	8.9000	20	2.40394	.53754
	Post	15.5500	20	4.01936	.89876

Paired Samples Test

		Paired Differences			t	df	sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	pre – post	-6.65000-	2.71981	.60817	-10.934-	19	0.0001

Table4: shows the result of the Experimental group for the pre -post test in Vocabulary. The result of the test for the experimental group –vocabulary test explained that the difference between the two means is significant.

Table 5: T-Test- Control Group Vocabulary

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	9.05	20	4.110	.919
	Post	9.55	20	4.148	.928

Paired Samples Test

		Paired Differences			t	df	Sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	pre - post	-.500-	4.161	.930	-.537-	19	0.597

Table 5: shows the result of the Control group for the pre -post test in Vocabulary. The result of the test for the difference between pre-test and post test give indicator of no significant difference between pre test and post test for the control group.

Table 6: T-Test Control – Experimental Group post test – Vocabulary

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	post	9.55	20	4.148	.928
	post2	15.5500	20	4.01936	.89876

Paired Samples Test

		Paired Differences			t	df	Sig
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	post - post2	-6.00000-	4.99473	1.11686	-5.372-	19	0.00012

Table 6: shows the result of the Control-Experimental group for the post-post test in Vocabulary. There is a significant difference between post tests of the two groups (control) and (experimental).

Discussion

Over the last years, research on meta-cognitive knowledge, also called meta-cognitive awareness, and critical thinking skills in learning (EFL) has evolved considerably from focusing on describing what composes student metacognition to a detailed and elaborated list of suggestions or strategies that help teachers initiate, and promote these skills. One of the main objectives of this study is to measure the effectiveness of an explicit systematic training program in some meta-cognitive strategies in the development of lexical knowledge and critical reading skills. Another main objective is to choose and adopt an educational metacognitive program that may suit teachers and instructors of English in Saudi universities.

After the application of the training program on the experimental group, the results of the pre-post test were amazingly significant; the experimental group outperformed the control group on the reading comprehension performance. Thus, the metacognitive strategy instruction seems to have

contributed to the improvement of students' reading comprehension performance. (Table; 2. B. Paired Samples Test- Differences), shows that the control group gained almost the same results pre and post (.50), while the experimental group (Table; 1. B. Paired Samples Test- Differences), shows significant differences in the pre - post test results (5.200).

When the results of the post test of both control and experimental groups, in critical reading skills, are compared, the experimental group recorded higher scores over their counterparts. Table; (3. B. Paired Samples Test- Differences) shows significant difference (2.7000) to the experimental group, which emphasizes the effectiveness of the explicit systematic training program meta-cognitive strategies in the development of students' critical reading skills.

This explicit systematic training in meta-cognitive strategies trained and encouraged students, in the experimental group, to acquire vocabulary in non-traditional ways that demanded from them to consciously plan, self-monitor and self-evaluate (using meta-cognitive strategies in teaching vocabulary items on the three levels). The results of the pre – post test, (Table; 4. B. Paired Samples Test- Differences) show significant differences, (6.65000) which reflected the experimental group's benefit from the training they received. While the control group's results show almost the same results reflected in (Table; 5. B. Paired Samples Test- Differences).

When comparing the post – post test results of both groups in meta-cognitive strategies training program, a clear distinction of the experimental group on the control group can be noticed. As presented in (Table; 6. B. Paired Samples Test- Differences) which shows the results of the statistics comparison between the two groups. This result ensures the effectiveness of the Metacognitive training program instructions which helped the experimental group to achieve excellent lexical knowledge.

This study emphasized that metacognitive experiences are those experiences that have something to do with the current, on-going cognitive endeavor. Students who demonstrate a wide range of metacognitive skills perform better on exams and complete work more efficiently. They are self-regulated learners who utilize the "right tool for the job" and modify learning strategies and skills

based on their awareness of effectiveness. The above discussion proves the study hypotheses correct as it emphasized the effectiveness of using MCS in teaching critical reading and lexicon.

Conclusion, Findings and Implications

The main finding of this study is that there is a positive correlation between the use of MCS and students mastering of excellent abilities in reading skills and lexical knowledge.

Metacognitive strategies are vital for any teacher's methodological repertoire. Empirical investigations focusing on Metacognitive strategies are scarce in EFL research. However, looking at the literature we find that far more research has been conducted on identifying and analyzing various motives and validating Metacognitive theories than on developing techniques to increase Metacognitive strategies. **K**. Chellamani's study conducted in India, "Activating Metacognitive Strategies on Enhancing Reading Skill among High School Students" and Fatemeh Takallou "The Effect of Metacognitive Strategy Instruction on EFL Learners' Reading Comprehension Performance and Metacognitive Awareness" done in Iran. Both Studies results agree with the present study in that there is a positive correlation between the use of MCS and students' awareness of their abilities in reading comprehension skills. In the Arab world one study was found related to this study. In Amman, Jordon by Jamal Al-Khaldi & Mohammed Awamreh "Impact of Meta-Cognitive Teaching Strategy on the Improvement of the Contemplative Thinking Skills"

Results were also found similar to the results of the current study.

Studies in this respect worldwide coincides our finding in this study which ensures that the teachers and instructors who apply MCS in their teaching career gain positive results, as their students master the art of self monitoring, planning and evaluating their work. Eventually produce critical and more independent thinkers.

According to the above findings we find that the program we prepared deserves consideration, and hereby we give a general framework of it while we attached a full version with this study.

The Meta-cognitive Training Program Framework

The ultimate goal of this program is to produce critical and more independent thinkers. Therefore, the content of this program is carefully selected to fulfill this goal as follows:

Chamot and O'malley's (1994) Cognitive Academic Language Learning Approach (CALLA), was chosen to be applied in the strategy training. This approach focuses on the integration of three aspects of learning: content area instruction, academic language development, and explicit instruction in learning strategies. The sequence of instruction in CALLA model includes five-phases:

Phase 1, Preparation: Raising Students' Strategy Awareness

In this phase, students are told the purpose and importance of meta-cognitive training and the teacher introduces the three main strategies one by one: planning, monitoring and evaluating. This phase lasted one week.

Phase 2, Presentations

In this stage, students receive detailed explanation of the three selected meta-cognitive strategies, characteristics, usefulness and the effectiveness of meta-cognitive strategies in developing vocabulary learning. This stage lasts for one week as follows:

1- Strategy of Planning includes the following:

- Skim for the title, headings, subheadings, photos, graphics, labels, illustrations and summaries.
- Set a goal in reading, (identifying a purpose for reading) and selecting particular actions to achieve this goal.
- Think about the text's topic, what students know (prior knowledge), what connections they can make and what questions they might answer.
- Think about the main idea and the way the text might be organized such as: cause and effect- compare and contrast- sequence of events- description or a combinations of these text structures.
- Select different techniques or strategies to deal with different reading materials.

2- Strategy of Self-Monitoring includes the following:

- Teacher shows to the students how to reflect on their understanding of the text when reading (What does the author really want me to know about this text?).

- check their former predictions of the text and revise them.

- do self-questioning and find answers by themselves.

- check whether they had used the appropriate methods in reading and adjust the methods if necessary.

- make inferences.

- use context clues.

- write comments or questions on self-stick notes or in the margins.

- use graphic organizers to pinpoint particular types of text information.

3- Strategy of Self-Evaluating includes the following:

- After reading, teacher shows the students how to reflect on one's critical reading skills. (How well one had performed during the task?)

- Examine whether one has achieved the goal set at the beginning.(What did I learn?)

- Assess whether they have applied appropriate method or strategy when reading or whether they should try something else next time..

- Assess whether they have fully understood the text(Is there anything I don't understand? Any gaps in my knowledge? Do I need to go back through the task to fill in any gaps in understanding?).

- Find out their weak points and the measures they should take for future improvement.

Phase 3. Practice

This stage was learner-centered. In this phase, students have the opportunity to practice meta-cognitive strategies in combination with vocabulary and reading. Students are shown how to recognize when one strategy isn't working and how to move onto another.

Phase 4. Evaluation

This stage is designed to develop students' ability to evaluate their own strategy use. The teacher designed a self-evaluation questionnaire for students to fill in after the previous 3 stages. After that,

the teacher gives comments to the questionnaires so that both teacher and students could be fully aware of students' progresses and shortages.

Phase 5. Expansion

In this stage learners are shown how to transfer the new strategy to different situations or tasks, and given opportunities to practice it.

General Directions to the teacher

1. Start with a theoretical presentation through lectures, discussions, and examples.
2. Write the main points on the board.
3. Divide your students into pairs to start the exercises (guided practice).
4. Ask each pair to discuss the exercise privately and then publicly under your supervision.
5. Evaluate individual students' performance through lesson and unit evaluations.

*A Teacher's Manual and a Student's Leaflet were prepared by the researchers to be used throughout the study period. (Copies of them will be attached).

Acknowledgments

Thanks to Allah the Almighty for guiding us in the completion of this research. The researchers are exceptionally grateful to his highness the chancellor of the Taif university, and to their Excellency the vice-chancellors for their concern in the leadership of the university and the advancement of scientific research and to their continuous support to researchers.

Completion of this work was made possible by the very high level of co- operation of the vice dean, staff members, and students of the Taif university - Khurma branch. We are very grateful to their willingness to participate in the research, and for their friendliness throughout the various phases of the study. We

are also indebted to Ms Abla Khalaf and Miss Gadi Alkakabi for their highly appreciated time and efforts in teaching the study groups and applying the pre-post tests.

Heartily thanks and regards are due to the Khurma college staff members especially the reviewers who helped in conducting the final version of the tests.

Finally, our thanks , appreciation and praise to all those who have contributed to the thought, effort or advice to lay out this research in its final version.

Abbreviations

Abbreviations	Stands for
MCS	Meta-cognitive strategies
CR	Critical reading
SLA	Second Language Acquisition
SQ3R	Question, Read, Recall and Review

References

1. Biemiller, A., & Meichenbaum, D. (1992): "The nature and nurture of the self-directed learner. Educational Leadership". 50, 75–80.
2. Borkowski, J., Carr, M., & Pressely, M. (1987): “Spontaneous” strategy use: Perspectives from meta-cognitive theory". Intelligence, 11, 61–75.
3. Chamot, A. U. (2005): "Language learning strategy instruction". Current issues and research. Annual Review of Applied Linguistics, 25, 112–130.
4. Chomsky, N. (1965): "Aspects of the theory of syntax". Boston: MIT Press.

5. Dornyei ,Z. and Cheng, H.F. (2007): "The Use of Motivational Strategies in Language Instruction: The Case of EFL Teaching in Taiwan". Innovation in Language Learning and Teaching Vol. 1,

6. Flavell, J.H. (1979): "Meta-cognition and cognitive monitoring. A new area of cognitive-development inquiry". American Psychologist 34 (10): 906–911.

7. Flavell, J. H. (1987): " Speculations about the nature and development of meta-cognition". In F. E. Weinert & R. H. Kluwe (Eds.), *Meta-cognition, motivation, and understanding* (pp. 21–29). Hillside, NJ: Lawrence Erlbaum Associates.

8.Fogarty, R. (1994): "How to teach for meta-cognition". Palatine, IL: IRI/Skylight Publishing.

9. Gass, Susan M. Annual Review of Applied Linguistics / Volume 9 / (March 1988): , pp 92-106. Copyright © Cambridge University Press 1988.

10. Garner, R (1990): "When children and adults do not use learning strategies: Toward a theory of settings". Review of Educational Research 60 (4): 517–529. doi:10.3102/00346543060004517.

11. Green, J. M., & Oxford, R. (1995): "A closer look at learning strategies, L2 proficiency, and gender. TESOL Quarterly". 29 (2), 261-297.

12.Halpern, D. F. (1996): "Thought and knowledge: An introduction to critical thinking". Mahwah, NJ: Lawrence Erlbaum Associates.

13. Hyde, A. & Bizar, M. (1989): "Thinking in context". White Plains, p. 51.
NY: Longman

14. Kieran, C. R. Fox; Kalina Christoff (2014): "Metacognitive Facilitation of Spontaneous Thought Processes: When Metacognition Helps the Wandering Mind Find Its Way". The Cognitive Neuroscience of Metacognition: 293–319. doi:10.1007/978-3-642-45190-4_13.

15. Livingston, J. A. (1997): "*Metacognition: An overview"*. Retrieved December 27, 2011 from http://gse.buffalo.edu/fas/shuell/CEP564/Metacog.htm.

16. Macaro, E. (2006): "Strategies for language learning and for language use: Revising the theoretical framework". Modern Language Journal, 90, 320–337.

17. McKeachie, W. J. (1988): "The need for study strategy training". In C. E. Weinstein, E. T. Goetz, & P. A. Alexander (Eds.), *Learning and study strategies: Issues in assessment, instruction, and evaluation* (pp. 3–9). New York: Academic Press.

18. Meichenbaum, D. (1985): "Teaching thinking: A cognitive-behavioral perspective". In S. F., Chipman, J. W. Segal, & R. Glaser (Eds.), *"Thinking and learning skills". Vol. 2: Research and open questions.* Hillsdale, NJ: Lawrence Erlbaum Associates.

19. Metcalfe, J., & Shimamura, A. P. (1994): "Metacognition: knowing about knowing". Cambridge, MA: MIT Press.

20. Nietfeld, J. L., & Shraw, G. (2002): "The effect of knowledge and strategy explanation on monitoring accuracy". *Journal of Educational Research, 95,* 131–142.

21. Nist, S. (1993): "What the literature says about academic literacy". *Georgia Journal of Reading,* Fall-Winter, 11–18.

22. North Central Regional Educational Laboratory. (1995): "*Strategic teaching and reading project guidebook".* Retrieved December 27, 2011, from http://www.ncrel.org/sdrs/areas/issues/students/learning/lr1metp.htm.

23. Oxford Psychology Dictionary; meta-cognition

24. Pressley, M., Borkowski, J. G., & Schneider, W. (1987): "Cognitive strategies: Good strategy users coordinate meta-cognition and knowledge". In R. Vasta, & G. Whitehurst (Eds.), *Annals of child development, 4,* 80–129. Greenwich, CT: JAI Press.

25. Schraw, G., & Dennison, R. S. (1994): "Assessing meta-cognitive awareness". *Contemporary Educational Psychology, 19,* 460–475.

26.Schraw, Gregory (1998): "Promoting general meta-cogntive awareness". *Instructional Science* 26: 113–125. doi:10.1023/A:1003044231033.

27.Spada, M. M., Zandvoort, M., & Wells, A. (2007): "Meta-cognitions in problem drinkers". Cognitive Therapy And Research, 31(5), 709-716. doi:10.1007/s10608-006-9066-1.

28. Swan, M. (2008): "Talking sense about learning strategies". RELC: A Journal of Language Teaching and Research in Southeast Asia, 39, 262-273.

29. Swanson, H.L. (1990): "Influence of metacognitive knowledge and aptitude on problem solving". Journal of Educational Psychology 82 (2): 306–314. doi:10.1037/0022-0663.82.2.306.

30.Thiede, K. W., Anderson, M. C., & Therriault, D. (2003): "Accuracy of meta-cognitive monitoring affects learning of texts". *Journal of Educational Psychology, 95*, 66–73.

31. Thompson, L; Thompson, M. (1998): "Neurofeedback combined with training in metacognitive strategies: Effectiveness in students with ADD". *Applied psychophysiology and biofeedback* 23 (4): 243–63. doi:10.1023/A:1022213731956, PMID 10457815.

32. Veenman, M. V. J. (2006): "Metacognition: Definitions, constituents, and their intricate relation with cognition". Symposium organized by Marcel V. J. Veenman, Anat Zohar, and Anastasia Efklides for the 2nd conference of the EARLI SIG on Meta-cognition (SIG 16), Cambridge, UK, 19–21 July.

33. Zohar, A., & Ben David, A. (2009): "Paving a clear path in a thick forest: A conceptual analysis of a meta-cognitive component. Meta-cognition And Learning". 4(3), 177-195. doi:10.1007/s11409-009-9044-6.

*** Wikipedia, the free encyclopedia

Appendix A: CRITICAL READING SKILLS TEST

Cutting Down the Forests

1 There is nothing new about people cutting down trees. In ancient times, Greece, Italy, and Great Britain were covered with forests. Over the centuries those forests were gradually cut back, until now almost nothing is left.

2 Today, however, trees are being cut down far more rapidly. Each year, about 42 million acres of forests are cut down. That is more than equal to the area of the whole Great Britain. While there are important reasons for cutting down trees, **these** are also dangerous consequences for life on earth.

3 A major cause of the present destruction is the worldwide demand for wood. In industrialized countries, people are using more and more wood for paper, furniture, and houses. There is not enough wood in these countries to satisfy the demand. Wood companies, therefore, have begun taking wood from the forest of Asia, Africa, South America, and even Siberia.

4 Wood is also in great demand as firewood in developing countries. In many areas, people depend on wood to cook **their** food. As the population grows, the need for wood grows, too. But when too many trees are cut at once, forests are destroyed. A future source of wood is destroyed as well. When some trees in a forest are left standing, the forest can grow back. But only if **it** is not cut again for at least 100 years. In reality, it usually has no chance to grow back. Small farmers who are desperate for land move in. **They** cut down the rest of the trees and burn them. In this way, many million of acres of forest are destroyed every year. Unfortunately, the forest soil is not good for growing food. Thus, these poor farmers remain as poor and desperate as before. **They** have also lost the resources of the forest.

5 However, the desperate and poor people are not the only ones to cut and burn forests. In Brazil and Central America, large landowners want to raise lots of cattle for export. They put too many cattle on too little land. When the land has been ruined, they burn parts of the forests. Then they move the cattle into the forest land. This way both land and forest are destroyed.

6 The destruction of forests affects first the people who used to live there. However, **it** also has other effects far away. For example, on the mountainsides, trees help to absorb heavy rains When the trees are cut down, the rain pours all at once into the rivers and there are terrible floods downstream. This has happened to the Ganges, the Mekong and other major rivers in Asia.

7 But finally, the loss of forests may have an effect on the climate of our planet. Together with

increasing pollution, it could cause temperatures to rise and the climate to change around the world No one knows exactly what effects this would have on our lives. For many people, however the effects would probably be destructive.

A. Circle the correct answer. **(9 marks)**

1. Greece, Italy, and Great Britain _____.

a. Are all covered by forests b. Never had any forests c. Have growing populations
d. Used to be covered by forests

2. These days, forests are being cut down in _____.

a. Asia, Africa, and South America b. Australia, New Zealand, and Tanzania
c. Greece, Italy, and Great Britain d. The industrialized countries

3. The demand for wood in industrialized countries _____.

a. Is helping to save the forests b. Is one cause of the forests´ destruction
c. Is easily satisfied by the United States d. Has declined in recent years

4. We can infer from the passage that poor people generally_____.

a. do not like living in the forests b. make a lot of money from the forests
d. do not benefit from cutting down the forests d. want the forest to grow back again

5. Large landowners in Brazil and Central America_____.

a. use the forests for hunting b. worry about the effects of cutting down the forests
c. use a lot of wood to build their houses d. destroy forests to raise beef cattle

6. When trees are cut down on mountainsides _____.

a. the wood is usually of poor quality b. they grow back quickly
c. there are flows downriver d. cattle come in to eat the grass

7. The cutting down of forests_____.

a. Could improve the climate b. Could cause heavy rains
c. Has no effect on people in cities d. Could affect the climate

8. According to the passage, you can infer that the forest can grow back if it is not cut again for at least a _____.

a. Decade b. Century c. Millennium d. 20 years

9. Which of the following is closest in meaning to developing countries?

a. industrialized b. developed c. wealthy d. not industrialized

Answer the following questions :

10. Using a graphic organizer to write the main idea of the article and its supporting details.

(Mention the main idea by using your own words) (**6 marks**)

……
……
……
……
……
……
……

11. According to the passage, you can infer that the writer is for or against cutting down trees? (**2 marks**)

……

12. Write a two-sentence summary for the third paragraph of the article. (**3 marks**)

……

……

13. Mention the text structure the writer uses in this article. (**2 marks)**

……

Write fact or opinion according to what is stated or implied in the sentence.8m

14. In ancient times, Greece, Italy, and Great Britain were covered with forests. **(……)**

15. Each year, about 42 million acres of forests are cut down. **(……)**

16. There are dangerous consequences for life on earth as a result of cutting down trees **(……..)**

17. For many people, however, the loss of forests would probably be destructive. **(……..)**

End of Questions

Appendix B: VOCABULARY ACHIEVEMENT TEST

Objective of the test

- This test is designed to assess your lexical knowledge in English Language.

Directions

- The test is divided into two parts having different instructions.
- The total number of the items in the test reached 25.
- Time allowed is an hour.
- Read the instructions thoroughly before you answer the questions.
- Answer all items, even though you are not completely sure of the answer.
- You will be provided with an answer sheet.
- Total score : 25

(A) In each of the following sentences there is a word underlined. Below each sentence are three other words or phrases. Choose the word or phrase which means the same as the underlined word. 16marks

1. There are different consequences for cutting down trees on earth.

a. Advantages b. Results c. Rangers

2. Students and their parents are most influenced by the preconceptions they have of the countries considered for study abroad.

a. ideas and opinions b. tuition c. reduction

3. Results of self-reported well-being is moderately consistent over years of retesting.

a. different b. inconsistent c. the same

4.Burning trees is a disaster which ruin the forest.

a. advantage b. catastrophe c. service

5. As the world continues to shrink , the choice of a study destination will be wider.

a. to become bigger b. to become smaller c. to become rich

6. People whose income has increased over a 10-year period are not happier than those whose income is stagnant.

a. increase b. static c. develop

7. The Asian economic downturn in the 1990s has not significantly affected the demographic composition of English language classrooms in Australia and New Zealand .

a. upturn b. fall c. improvement

8. When travelling to live in a new country, one may encounter one roadblock after another.

a. obstacle b. necessary c. to feel bad about

9. In most nations the correlation between income and happiness is negligible.

a. insignificant b. very important c. necessary

10. With progress, change is inevitable.

a. possible b. can't be stopped c. not possible

11. People have not become happier over time as their cultures have become more affluent.

a. poor b. unimportant c. rich

12. Some people think that the use of English words is threatening the purity of their native language.

a. improved b. in doubt c. in danger

13. In Chinese approach to solve problems , patience and negotiation skills are key.

a. necessary b. unimportant c. not possible

14.Some countries have tried to eliminate English as their official language as a way of saving their native tongue.

a. remove b. welcome c. exchange

15. Happy people are less susceptible to disease than depressed people.

a. important b. affected c. static

16. The French gave fines for the use of English.

a. punishment by taking money b. points c. prison punishment

(B) Choose the word or phrase that best completes each of the following sentences. 8 marks

17. When one experiences a psychological disorientation due to living in a new culture, this is called **……..**

a. cultural norms b. stereotyping c. cultural shock

18.An honors student is a person who **……..**

a. is quiet and spend time alone b. does well in school c. is poor

19. Couples usually have **……** due to the lack of communication.

a. haircut b. misunderstandings c. put on

20. When there is good well and understanding, problems can be solved**…….**

a. smoothly b. bad c. in danger

21. International students **……** college away from home.

a. leave b. attend c. avoid

22. Canada has the most homogenous group of students. The closest word in meaning to homogenous is **……..**

a. heterogeneous b. of the same type c. different

23. A century is a time period of **…….** years

a. 10 b. 50 c. 100

24. People who have insomnia are those who **……**

a. can't eat well b. sleep too much c. can't sleep well

25. Because international students are not citizen , they have to pay full**……**

a. tuition b. degree c. enrollment

End of Questions