The Effects of Metacognitive Awareness-Raising on Learners' Reading Proficiency and Strategy Use: Case of First- Year LMD Students at ABou Bekr Belkaid University of Tlemcen

Yassamina HAICHA – ABDAT
English Department
Tlemcen University
Algeria

Abstract

Within the field of education, one of the most important responsibilities that each teacher needs to assume consists in equipping the learners with all the necessary tools to cope with the demands of an ever-changing world. With no doubt, for a more successful fulfillement of such a prominent responsibility, the learners need to be consciously aware of the true nature of the learning process as well as the crucial role of acquiring skills and strategies that would certainly engender an effective learning process. These two concerns have led to a plethora of research on how to help the individuals become successful learners, and what teachers can do to assist their learning. Bearing all this in mind, the present exploratory research endeavours to elucidate the major effect of an explicit and integrated instruction of metacognitive reading strategies on learners' English as a Foreign Language reading proficiency and strategy use. The researcher has randomly chosen ten Algerian speaking students studying at the Department of English in Abou Bakr Belkaid University of Tlemcen. Data were collected by means of three essential data-gathering tools, namely questionnaire, proficiency tests and think-aloud protocol (TAP). The researcher confirmed that metacognitive reading strategy instruction had a positive effect on the learners' reading proficiency and strategy use which was empirically verified during the implementation of the Think Aloud protocol.

Key words: metacognitive awareness, reading strategies, explicit teaching. EFL learners, TAP(think Aloud Protocol)

Introduction

It would be with no exaggeration to note that English functions as a universal language due to its pervasive importance in this changing time of globalization, and has consequently become the language widely adopted for political, technological, social and educational development. Similarly, it has witnessed such development in its role in the Algerian educational context since 1962, and more importantly after the advent of globalization process in the early 1990s.

Yet, within the field of education, more specifically in EFL process a significant number of oriented studies has clearly shown that learners still encounter some serious issues throughout their studies that are in some part due to the unsuccessful equal consideration of four fundamental linguistic skills: listening, speaking, reading and writing. Despite all the efforts and much time consumed by EFL teachers, the results seem strikingly unsatisfactory, and the learners still display low achievement in English language use. Perhaps inspired by this thought, the present article endeavours to review theoretically the significance of the teaching / learning of reading skill at university level paying due attention to elucidating and unearthing to what extent the explicit and integrated metacognitive reading strategy instruction at awareness-raising level may affect positively the learners' reading proficiency and strategy use.

Theoretical Background

1.   *Reading Comprehension*

Over the last few decades, a set of considerable investigations in Foreign Language reading have been conducted that have provided numerous insights for FL reading theories and reading instruction. The basic rationale of such research was to seek for the most suitable definition of reading. It has led to the argument that reading can be defined from two standpoints: common knowledge, and scientific view.

For the popular literature, reading is the ability of processing one's aptitude or capability to recognize the shape of a finite number of letters and alphabetical symbols that are connected to form an infinite number of meaningful words, clauses and sentences respecting the punctuation and division of paragraphs. In this respect, the process of reading follows a common sense description of three related dimensions:

As an opening stage, the learner recognizes the written characters he/she meets in print, which are organized in particular spatial order; (from the left to the right when speaking about all Indo-European languages, while it is completely the reverse for Hamito- Semitic ones); and masters their pronunciation.

In the subsequent phase, he/she combines them into meaningful conventional items and sentences respecting the rules of syntax that may not resemble those of his/her native language. Additionally, the mastery of the printed words can be done successfully through a consistent vocabulary and syntax activities, which should not be underestimated for they contribute well in enhancing learners' comprehension of reading.

Once the recognized written symbols are combined into meaningful items and sentences, the learner can successfully understand and interpret the entire meaning of the given sentence (s). In such a case, the three related dimensions discussed above are then closely related to three linguistic skills i.e. *recognition with phonology* (how to pronounce sounds in various combinations), *structuring with syntax* (rules that govern word order), and *interpretation with semantics* (when the learner assigns the accurate meaning of the printed symbols, then comprehension takes place).

However, from the scientific perspective, numerous neurological researchers notice that reading is not merely a product-oriented approach that constitutes language form, but also an intricate process actively involving both hemispheres of the brain that endeavours to negotiate understanding between the learner and the writer of the text. Here, reading is merely regarded as an end product or a process-oriented approach that deals with language content.

Urquart and Weir have endeavoured to summarize the complexity of this process as follows: **"**Reading is the process of receiving and interpreting information encoded in language form via the medium of print." (1988, p. 22).

Reading as a Language Skill

It is pertinent to note that reading strives not only to teach the learner how to establish components necessary for reading process, but attempts also to model this process by specifying

these components, and reveal correlations between them. According to Hoover (1990), "reading consists of only two components; one that allows language to be recognized through graphic representation and another that allows language to be comprehended", (p.01).

For the sake of communication to take place, there should be, however, a direct association and interaction between the interlocutors, i.e. the learner being 'the reader' of the text, and the writer. In this respect, the learner necessitates both ability, and proficiency to understand the message conveyed by the writer of the text. In the same line of thought, Davies (1995) assumes that, reading is private. It is a mental, or a cognitive process which involves a reader in trying to follow and respond to a message from the writer who is distant in place and time, (p.01)

However, it is unrealistic to believe that reading can be acquired without special effort i.e. as a passive skill, as it requires the learner's mental and experimental input than is suggested by the mere decoding of symbols. In this context, Goodman (1973) maintains that, the learner:

"As a user of a language interacts with the graphic input as he seeks to reconstruct a message encoded by the writer. He concentrates his total prior experience and concepts he has attained, as well as the language competence he has achieved." (p.162)

2.   The survey of reading strategies (SORS)

Before classifying reading strategies, it would seem undeniably wiser to consider the question: *what is meant by the term strategy? And what makes it different from a skill?*
The term *'strategy'* can be operationalized as learning techniques or behaviours that help learners iron out the frequent difficulties encountered whenever learning is taking place, and enable them to effectively and efficiently interact with the written passages. This concept has been defined differently by numerous specialists in this field of research. Anderson (1991)**,** on deliberate cognitive steps that, "[…]readers can take to assist in acquiring, storing, and retrieving new information", (p.460).
Therefore, it can be obviously stated that reading strategies are paramount for they enable readers to better tackle different reading tasks, and construct meaning from the written passages as competently as possible. These strategies may involve a wide range of cognitive mental activities which can be summarized as follows:

"The strategies may involve skimming, scanning, guessing, recognizing cognates and word families, reading for meaning, predicting, activating general knowledge, making inferences, and separating main ideas from supporting ideas.", (Phan 2006, p. 01)

Furthermore, there are other more recently recognized text-processing strategies such as activating prior knowledge, and recognizing textual organization, which have been added to the list of strategic behaviours. These strategies discussed above have been later grouped by Carrell (1989) as 'local' bottom-up decoding types of reading strategies and 'global', top-down types of reading strategies. As the former, it concerns sound-to letter correspondence (phonetics-based approach), the latter has to do with readers' activated background knowledge (readers-driven types of information processing) and recognizing text structure.
Reading researchers generally typify reading strategies into two main categories: cognitive and metacognitive reading strategies. Cognitive strategies serve as primordial learning techniques that assist learners in constructing meaning from the text, which are made up of bottom-up and top-down strategies. In the case of using bottom-up reading strategies, the learners' minds

"Repeatedly engage in a variety of processes ... Readers start by processing information at the sentence level. In other words, they focus on the identification of the meaning and grammatical category of a word, sentence, syntax, text detail and so forth.", (Salataci, 2002, p.02)

Whereas top-down strategies consist of integrating one's background knowledge to the reading process to construct meaning from a text rather than passively identifying words in the text, predicting and getting the gist of text or skimming. In this sense, 'reading is asking questions of printed text, and reading with comprehension becomes a matter of getting your questions answered' (Smith, 1975, p.105).

Metacognitive reading strategies, on the other side, function as a valuable means to monitor and regulate cognitive strategies which include " checking the outcome of any attempt to solve a problem, planning one's next move, monitoring the effectiveness of any attempted action, testing, revising and evaluating one's strategies for learning. (Brown *et al,*1984, p. 354)
Reading researchers, later could obtain some strategies through other several case studies that successful readers generally employ to enhance reading comprehension and overcome comprehension failure. These strategies will be shown in the following list

Table1. *Strategy Coding Scheme: reading strategies (strategy type + strategy behaviour) Singhal (2001)*

STRATEGY TYPE	STRATEGY BEHAVIOR	DESCRIPTION
Cognitive	Paraphrasinng/ Summarizing.	• The reader rephrases content using different words but retains the same sense.
	Anticipating/ Predicting.	• The reader predicts what content will occur in succeeding portions of the text.
	Previewing Ttext.	• The reader previews the text to see how it is organized and related to what they know.
	Employing Context Clues.	• The reader uses clues in the story in order to make predictions or increase understanding.
	Repeating Words	• The reader repeats unknown words.
	Analyzing	• The reader analyzes word structure, grammatical structures or expressions to determine the meanings of these words/sentences/expressions.
	Word Division.	• The reader divides the words into parts to make it comprehensible.
	Using Illustrations.	• The reader uses illustrations/graphs, etc. in order to facilitate understanding of the text.
	Using Titles.	• The reader uses titles/headings to facilitate understanding of the text.
	Using Connectors.	• The reader uses connectors to identify continuing ideas.
	Rereading.	• The reader rereads parts of a text several times in order to facilitate comprehension.
Compensation	Guessing / Hypothesizing	• The reader guesses the general meaning of a word by using context clues.
Memory	Associating.	• The reader creates an association between new material and what is already known.
	Word Grouping.	• The reader places the new words in a group with other similar known words to determine meaning.
	Word Associating.	• The reader associates a word with a known word in order to determine meaning.
	First Language Associating- Cognates	• The reader remembers a new word by identifying it with a word in their first language.
Metacognitive	Monitoring.	• The reader self-monitors their own understanding / pacing/ pronunciation of words.
	Correcting Errors. Word Recognition.	• The reader tries to correct their language/reading errors.
		• The reader is able to recognize unknown words by repeating them.

	Recognizing/ Important.	• The reader recognizes what is important and not important and can skip those words or information
Affective	**Self-Encouragement**	• The reader makes encouraging statements to his/ her students and pays attention to factors that may interfere with performance or comprehension.
Social	**Clarifying** **Verifying** **Seeking Feedback.**	• The reader asks for clarification when something is not understood. • The reader asks for verification that something has been understood or said correctly. • The reader asks others for feedback about his or reading, responses, etc.
Textual	**Reacting to Text** **Interpreting Text Emotional Reaction**	• The reader can react to a text and express opinions about the text and characters. • The reader draws a conclusion about the text in terms of theme or interpretation of text. • The reader reacts emotionally to the text.

The importance accorded to these strategies can be shown in numerous empirical case studies which have been conducted by SL/FL researchers seeking to understand why some learners are likely to be more successful readers than others. (**Hosenfeld, 1977; Knight, *et al* 1985**; **Block 1986; Jimenez, *et al* 1995**). In a qualitative study, Hosenfeld attempted to identify the direct relation between certain types of reading strategies and successful or less successful learners. The results obtained have clearly demonstrated that the differences lie in the fact those successful learners:

- *kept the meaning of the passage in mind during reading.*
- *read in broad phrases.*
- *skipped words viewed as unimportant to total phrase meaning.*
- *had positive concept of themselves as readers* (Hosenfeld, 1977,p. 110).

In contrast, the unsuccessful learners tend to be those who:

- *lost the meaning of sentences as soon as they were decoded.*
- *read in short phrases.*
- *skipped words as unimportant and viewed words as equal in their contribution to total phrase meaning.*
- *had a negative self-concept as a reader* (Carrell, 1989, p. 03)

4. *Metacognitive Awareness and Reading Comprehension*

Although studies on SL / FL reading strategies are a major trend of second / foreign language research, recent research interest has focused on language learners' metacognitive knowledge or awareness of strategies, and the primordial role it plays during reading process. Yet, before tackling this effect, it would be indeed helpful to provide at first definitions-based on the concept of metacognition, and have a brief and synchronized look at its history.

The term metacognition has been variously defined as 'cognition of cognition' (Carrell, *et al*, 1989, p.647), 'the conscious awareness of cognitive processes' (Bernhardt 1991:52), and 'knowledge about learning' (Wenden, 1998, p.516). In the context of learning reading comprehension, 'metacognition is the knowledge that takes as its object or regulates any aspect of any cognitive endeavour' (Flavell, 1979, p.08).

Historically speaking, metacognition has its root in research conducted prior to 1976 during which Flavell's pioneering work greatly helped in giving form of this concept and provided an impetus for its study. During this period, research occurred in the field of developmental and educational psychology whereby to offer more sophisticated methodologies for asserting metacognition (Nelson, 1988). The studies based on metacognition were grouped into four categories, the former category incorporates studies of cognition monitoring whose purpose consisted in examining people's knowledge of their knowledge and thought processes, and how accurately they can monitor the current state their knowledge and processes, the second category stresses on 'regulation of one's own thinking processes in order to cope with changing

situational demands. The third category of metacognitive research has examined how people regulate their choice of strategies and recently, the fourth category stressed on the ways in which metacognitive theory can be applied in the educational settings.

In the context of teaching / learning of reading, metacognition can be divided into five primary interrelated components of which none of them can function in isolation. These components concern:

- *Preparing and planning for reading.*
- *Deciding when to use particular reading strategies.*
- *Knowing how to monitor strategy use.*
- *Learning how to orchestrate various strategies.*
- *Evaluating reading strategy use.* (Anderson, 2001).

Those processes were and are still considered to be part of metacognitive skills which play a great role in self-regulated monitoring that takes place during reading comprehension. By practising and applying these components, learners will unquestionably become good readers and capable to handle any text across a curriculum. As explained in Flavell's study, metacognitive knowledge can be categorized into two components: *knowledge about cognition* and *regulation of cognition* (1978, p.08). Knowledge of cognition includes three related components that are involved within any learning task. They have been labelled: '*declarative*', '*procedural*', and '*conditional*' components.

- *Declarative knowledge*: refers to '*knowing what*' strategy to use in specific learning task e.g. one may know what is skimming or scanning.

- *Procedural knowledge*: refers to '*knowing how*' to perform various activities or putting the knowledge into action e.g. how to sum up a text, how to skim (to get the gist of the selected passage) or how to scan (to spot the information required by the learner)… and so forth.

- *Conditional knowledge*: refers to '*knowing why*' to use a particular strategy, and when it would be applicable and transferable effectively and appropriately in another language area, or new task to be mastered.

Whereas regulation of cognition is directly related to those processes involved within metacognitive strategies, i.e. planning, monitoring, problem-solving and evaluating. Philip presented those major macro metacognitive strategy categories which include planning, comprehension monitoring, problem-solving and evaluating and modifying in the table below:

Table 2. *Processing framework (Philip et al, 2006, p. 23)*

Micro strategy	Macro strategy
Planning (PL)	(PL 1) analyse goals. (PL 2) Identify relevant and useful LS. (PL 3) Deciding and implementing on strategies. (PL 4) Planning strategic moves. (PL 5) Making preview / overview. (PL 6) Scanning information in text. (PL 7) Skimming for gist of information in text. (PL 8) Predicting content of text.
Comprehension Monitoring (CM)	(CM 1) Monitoring one's strategy use. (CM 2) Double-checking on one's comprehension. (CM 3) Relating one's prior / Background knowledge. (CM 4) Relating one's academic knowledge. (CM 5) Attending selectively to important / familiar terms to facilitate comprehension.
Problem-Solving (PS)	(PS 1) Infer from contextual clues. (PS2) Make logical and intelligent guesses. (PS 3) Integrate information into a summary. (PS 4) Seek clarification from teacher. (PS 5) Question peers and cooperate with them.
Evaluation (EVA) / Modification (MOD)	(EVA 1) Evaluate the effectiveness of strategy. (EVA 2) Identify most useful feature (s) of strategy. (EVA 3) Reflect on context within which strategy successfully implemented.

	(EVA 4) Modify strategy based on task demands. (EVA 5) Evaluate on strategy best combination. (EVA 6) Assess suitable conditions (when) to use strategies. (EVA 7) Evaluate ways to re-implement unsuccessful strategic moves.

Rationale of the Present study

This project has the following research objectives:

- ➢ *To identify the main causes behind learners' comprehension difficulties.*
- ➢ *Explore the usefulness and the effect of explicit / integrated instruction of metacognitive strategies on learners' reading proficiency and strategy use.*

Participants of the Study

The informants chosen for this experimental-based research were ten (10) students enrolled in the English Language Teaching Department at the Faculty of Arts, Human and Social Sciences of Abou Bakr Belkaid University, Tlemcen. The study was carried out during the beginning of the academic year (2008-2009). Male represented 30% percent (3) of the sample and 70% percent (7) females. Their chronological age ranges from seventeen to twenty-three years old. Two of them were in the Literature and Islamic sciences whereas the majority belongs to Arabic literature and foreign languages whose coefficient is 3 and Literature and Human Sciences. They have been exposed to the learning of English Language for five to seven years so far.

Research Instruments

This empirical study was carried out via three-attention worthy tools: questionnaire, tests and think-aloud protocol.

Questionnaires: Description and Administration

The present investigation has been conducted through a questionnaire which was distributed to first year university EFL learners. Conducting a metacognitive questionnaire to first year university EFL learners was of paramount importance since it helped to elicit from the respondents their retrospective data about:

- - *their profile, proficiency level and reading background and their learning preferences.*
- - *their potential difficulties and needs in reading comprehension.*
- - *the main strategies they often orchestrate in problem solving tasks to sort out these difficulties.*

Proficiency Test Description and Administration

The informants, chosen as population sampling, were tested before training them through metacognitive strategy instruction. The aim of conducting the pre-training proficiency test consists in assessing their current abilities in the area of reading comprehension, whereby to yield the results about:

1- *their ability to orchestrate different strategies appropriately and in meaningful manner, prior to reading strategy training sessions.*
2- *the sources that threaten their reading proficiency*.

During reading proficiency test, the learners were provided with a text followed by a set of comprehension activities related to the text content, and which were replied during one session. After completing this pre-test, learners' performance of reading was or measured, elicited, and then evaluated by the researcher.

Think-Aloud Protocol: Aims and Procedure

Within classroom and research contexts in general, especially in terms of language learning / teaching strategies, research tools may be numerous, nonetheless, the use of introspective methods seem is to be increasingly the most prevalent ones. Think-aloud technique is often said to be an advantageous introspective data gathering method for any researcher trying to unveil and describe one's conscious mental processes undertaken while performing a specific language task rather than his / her own outcomes or product. Think-aloud, according to Chamot, "is a technique in which a person verbalizes his or her own thought processes while working on a task … Generally, these processes are the person's strategies for completing language task" (1999, p.68).

Therefore, within this empirical phase, the researcher, selected reading passage followed by a set of comprehension activities taking into account the type of the tasks which should be challenging to require the application of some reading strategies.

Results Analyses

Learners' Questionnaires Results

Admittedly, the analysis of learners' responses to this metacognitive questionnaire clearly revealed a variety of strategies they reported using while dealing with reading passages which can be precisely summarized and thoroughly described in the table:

Table 3. *Types and frequency of learners' strategies employed in the questionnaire.*

Learners' employed strategies	Strategies classification	Number of students (out of ten)
Scanning (analyzing particular points).	Cognitive	07
Using external resources.	Support strategies	03
Rereading.	Cognitive strategies	05
Guessing from context.	Cognitive strategies	04
Reconsidering the problematic part of the text.	Metacognitive strategies	01
Activating background knowledge.	Metacognitive strategies	08
Distinguishing important from less important details.	Metacognitive strategies	02
Planning.	Metacognitive strategies	07
Summarizing.	Cognitive strategies	01
Identifying the purpose of the task.	Metacognitive strategies	03

Proficiency Test Results

As previously noted, the test was a second step undertaken prior to the strategy training instruction sessions which consisted in assessing learners' reading proficiency, their linguistic level, as well as their capability in utilizing adequately the five reading strategies of predicting, skimming, scanning, inferring and contextual guessing. During this procedure, the researcher relied more on the quantitative approach for analyzing the data obtained from this test. It consisted of an informative text followed by a set of nine comprehension questions related to the content. The number of respondents who could respond correctly on the required tasks was counted. And then, the researcher through the analysis could differentiate between the proficient and less proficient readers. The results could be better illustrated in the following table:

Table 4. *Frequency of learners' answers to test questions prior to the instruction phase*

Predicting		Skimming		Scanning		Inferring		Guessing from context	
A.F	R.F	A.F	R.F	A.F	R.F	A.F	R.F	A.F	R.F
07	70 %	10	100 %	05	50 %	03	30 %	4	40 %

As for the analysis of predicting question, seven students out of ten could respond correctly to the present question since the topic tends to be very famous history that was known by almost all learners at different levels. Nevertheless, the three remaining students could not respond which is probably due to their inability to extract even one idea from the given title.

Skimming strategy was examined through question two during this activity, the learners were encouraged to make predictions over the content by reading through it quickly. As shown

in the preceding table all the informants could perform the skimming strategy and thus gave the convenient answer about the main idea.

Similarly, scanning was processed through question three, four and five, during which the informants were required to read the text quickly but for different purposes. Five learners could be able to find the answers required for these scanning questions in a very short period of time, whereas five other students could not respond correctly especially to question four since the term strategy is still new and unfamiliar.

Inferring strategy was inspected through question six and seven during which the learners were required to read carefully to be able to adequately infer what was implied in this passage. The analysis has shown that only three students could be able to perform this strategy in a convenient manner. Conversely, seven students, through their written answers have really displayed a difficulty in providing the correct answers to the present inference questions.

This strategy was processed through the last two remaining questions where only four students were able to guess the meaning of the selected words from their context (30 %) while the remaining were unlikely to understand their contextual meaning from the given passage. All in all, the number of the subjects who could respond correctly to the provided tasks representing 30 % of the total number, which may be taken to mean that these learners can be characterized as proficient readers.

Think-Aloud Protocol Results

In order to answer the third research question, both quantitative and qualitative data analyses were deployed. First of all, results generated by the implementation of think-aloud were carried out immediately after completing the pre-training proficiency test. Therefore, each learner while being interviewed was given enough time to think and report exactly what he /she was thinking about while reading. It is probably due to this factor which led to the absence of vocalizing inner speech, i.e. hum, ok, ah ... etc. Yet, the analysis of these protocols clearly revealed that the learners suffered and are still suffering from some striking linguistic deficiencies since the researcher has transcribed each word uttered and produced by the learner while listening to their recorded speech from the tape.

Before discussing and analysing the data obtained from the learners' verbalized protocol, the researcher as a starting point provided two pre-planned questions during which the learners were required to answer. The first question "***What kind of strategies do they use before reading a text?***" was analysed. Thus, it was clearly observed from their verbalized answers that the majority of the learners could not offer any answer to this question. To prove it, it is worth considering the following answers provided by the learners themselves during which they relied heavily on mixing code approach (using Arabic, French, English and even dialectal Arabic) from time to time whereby to purposefully make the invisible processes of reading visible.

- **كيفاش – آه؟ شاندير مفهمتش بلاك نشوف شحال من paragraphe و نعاود نشوف كيش داير النوع ما دام ما تعرفتش على الموضوع ما كانش حتىplan.**

- What,.. ahh, what to do . I couldn't understand, maybe I am going to check how many paragraphs it contains, then I'll try to check the type of the provided passage, yet since I still have not the text, so no plan is utilized

(The present question therefore was misunderstood for they have been told to elicit the steps undertaken before distributing the text).
- **Aucune idée about the text** ⟶ **no idea about the text so no particular plan is used** (student B).

- **Je réfléchis, imagine about the type of the text, then** ... **hum**. **no plan**, **ما كانش** ⟶I try to think about the text, type. Above all, no plan is used).

These answers may be taken to mean that the non-strategic readers tend to read without setting a purpose, thus no self-planning strategy was utilized. On the reverse, three out of ten students responded as follows:
- **Ah ... bon, ... imagine about the type**
I try to get the meaning from the title and think واسم يجي ممبعد (Student F, appendix G).
.Or,
- **قبل قراءة النص مباشرة، أول مرحلة نقوم بها هي معرفة العنوان و ذلك لمعرفة حول ما يدور الموضوع، و ممبعد نحاول نجلب الأفكار لي عندي من معرفتي السابقة و أيضاٍا...**

I see the key words of the title.)

Before reading a text, the first step I should normally go through is to read the title, I try to simultaneously activate my content schemata about the topic the text discusses; in addition, I will circle or underline the key words of the title.

These learners may be classified among the strategic readers since they could notice the crucial importance of self-planning strategy as a primordial metacognitive process that each learner should go though prior to reading activity for enhancing better reading performance.

As for the frequency of strategies mentioned under the question "***What do you normally do when you don't understand a part of reading text?***" Almost able reported using some comprehension monitoring strategies like rereading, willing the key works, and guessing their contextual meaning by reading the section around them to figure out their meaning which was evidenced several times. Yet, only one student assumed that using either social strategies or support strategies may be the most convenient solution for solving the problem under consideration. Thus, they responded as follows:

- **I try to understand the whole text.**
- **I underline the key words.**
- **I read the text several times or**

- **عندما نقرأ النص جيدا، و أثناء قراءتي نجد كلمة صعبة في هذه الحالة نحاول نفهم الفكرة أو الكلمة لي بعدها و لي قبلها.**

- **عند قراءة النص و عدم معرفة ألفاظه ...أم نحاول بعدا نفهم واسم تقصد بعد أن اقرأ الجمل المجاورة لها، و لا نسقسي واحد من الأصدقاء لي شوية fort عليا في الفهم، أو الأستاذ و آخر وسيلة نستعمل dictionnaire**

- i.e. while reading, I come across an unfamiliar word, in this way I try to read the section around it to figure out its meaning. If I still unclear, I ask the help from one of my peers, or my teacher and as a last solution, I check its meaning in the dictionary. (Student G).

As for the analysis of the answers obtained from the five cognitive strategies (predicting, skimming, scanning, inferring and contextual guessing), the rationale of examining these answers during think-aloud procedure consists in providing insights on the metacognitive strategy used by the selected participants during their actual reading process. Because of the fact that the strategy changes for different purposes, frequencies and percentages are determined for each strategy type used by the participants which are presented in the following table

Table 4. *Types and frequency of strategies employed in think-aloud (pre-training phase).*

	Strategy unveiled	Strategy classification	R.F	A.F
Predicting	Activating background knowledge	Metacognitive strategy	09	90 %
	Translation.	Cognitive strategy	01	10 %
	Re-reading.	Cognitive strategy	01	10 %
	Self-management.	Metacognitive strategy	02	20 %
	Underlying key words of the title.	Cognitive strategy	01	10 %
	Advance organizing.	Metacognitive strategy	01	10 %

From the above table, it might be obvious and well observed that on the whole, the respondents made use of more types of cognitive strategies than metacognitive ones, while performing predicting strategy. The examples of cognitive and metacognitive strategies the learners reported using them prior to the strategy training instruction can be well explained through the following answers:

- **عرفت من معرفتي السابقة، و زيد بزيادة، تفرجت للفيلم شحال من مرة، آه ... ما عناتش كيسمها، الحصة   لي جابوا فيها Titanic ، آم ... آه سايي تفكرت "ساعة من ذهب" و معناه شيطان عظيم.**(Student A)
- **تفكرت الأحداث نتع الفيلم بالعربية و بديت نترجم بالإنجليزية**

Concerning skimming strategy, the learners made use of set of strategies that can be categorized into cognitive and metacognitive strategies which are exposed in the table below:

Table 5. *Type and frequency of strategies employed in skimming strategy*

	Strategy employed	Strategy classification	R.F	A.F
	Finding key words.	Cognitive strategy	06	60 %
	Re-reading.	Cognitive strategy	03	30 %

Skimming	Using background knowledge	Metacognitive strategy	03	30 %
	Directed attention.	Metacognitive strategy	02	20 %
	Self-management.	Metacognitive strategy	03	30 %
	Ignoring unnecessary details.	Metacognitive strategy	02	20 %
	Reading with a purpose.	Metacognitive strategy	01	10 %
	Linking sounds with imagery.	Cognitive strategy	01	10 %
	Selective attention.	Metacognitive strategy	01	10 %

Table 5. Type and frequency of strategies employed in skimming strategy

As shown in the above table, when the frequency with which these students used such strategies was analysed, it was seen that the most frequently employed strategy when performing skimming was 'identifying the key words' (cognitive strategy) which was employed by seven students, whereas the use of metacognitive reading strategies which was clearly employed once the learners were interviewed during the think-aloud was 'integrating one's background knowledge' which was employed by three students as far as the second question of the pre-test was concerned. To prove it, one may consider the following answers as exactly recorded on the tape:

- قريت text deux fois ، و puisque تيتانيك هي الكلمة المفتاحية، فتشت على الأفكار لي عندها علاقة معاه في النص.
- I.e. I have read the text twice, and since the word 'Titanic' represents the key word, I went straightforward to highlight the main ideas that are related to 'Titanic'. (Student A)
- قريتو شحال من مرة ... و راني عاد عائلة على الفيلم
- I have read the text several times ... and I still remember the events of this story.

Concerning scanning, the respondents rely on a set of cognitive and metacognitive strategies which are clearly identified and thoroughly explained in the following table:

Table 6. *Type and frequency of strategies employed in scanning activity.*

	Strategy employed	**Strategy classification**	**R.F**	**A.F**
Scanning	Rereading.	Cognitive strategy.	06	60 %
	Selective attention.	Metacognitive strategy.	07	70 %
	Linking sound with imagery.	Cognitive strategy.	01	10 %
	Highlighting main ideas.	Metacognitive strategy.	02	20 %
	Finding key words.	Cognitive strategy.	03	30 %

Therefore, to prove the idea that the already elicited strategies explained above were put into practice during think-aloud, it might be worthwhile to consider their answers which were of course provided using mixing code approach.

- ركزت على les details و surtout على الأفكار لي فيها اعداد، أحداث وقائع و لا شخصيات.

-I focus on the main ideas (especially those imprising numbers, events and characters). (Student B).

As regard the use of cognitive and metacognitive reading strategies when performing inferring activity, which were unveiled during think-aloud by the participants, it is clearly felt by the researcher that most of them neither reply the question of the pre-test that required the utilization of this strategy nor unveil any particular strategy to help them solve such problem, claiming that the lack of vocabulary was more influential than the effect of background knowledge. Through the story of 'Titanic' was well known by almost the majority of people, it was hard for some to understand the entire content of the text because of several unfamiliar words. In addition, it was even difficult and complex for them to infer the meaning implicitly stated in the text. The results are to be shown in the table:

Table 7. *Type and frequency of strategies employed in inferring activity.*

	Strategy employed	**Strategy classification**	**R.F**	**A.F**

	Self-management.	Metacognitive strategy.	02	20 %
Inferring	Circling the key words.	Cognitive strategy.	01	10 %
	Rereading.	Cognitive strategy.	01	10 %

As obviously shown in the present table, only two students out of ten respondents tended to use self-management metacognitive strategy. However, the least frequent of all the cognitive strategies observed in the TAP1 circling the key words and re-reading strategies, which were employed more than one time. Thus, one may consider what was exactly uttered by the learners themselves while performing 'inferring' strategy during the think-aloud procedure.

- من القصة بحدك تفهم بلي normalement هاذيك l'alarme كانت موجهة لـ captaine

- و زيد الكاتب ختار she / her باش يمنع repetition

- It was clearly understood that the alarm had been given to the captain (1st question).
- In addition, the writer preferred to use 'she' and 'her' just in the case to avoid repetition. (2nd question Student B)

Concerning the last activity, which concerns the performance of guessing strategy, some of learners still encounter some difficulties, while the others utilize some cognitive and metacognitive strategies as shown in the following table:

Table.8 *Type and frequency of strategies employed in guessing activity*

	Strategy employed	**Strategy classification**	**R.F**	**A.F**
	Self-management.	Metacognitive strategy.	02	20 %
	Using words around them.	Cognitive strategy.	01	10 %
Contextual	Integrating one's background knowledge.	Metacognitive strategy.	02	20 %
Guessing	Translation / knowledge transfer	Cognitive strategy.	01	10 %
	Rereading.	Cognitive strategy.	01	10 %

As shown in the above table, concerning the use of metacognitive strategies with the ten students in think-aloud, the most frequent strategies were trying to integrate one's background knowledge (employed twice), and self-management strategy (also employed two times). However, the least frequent strategies, which were both employed only one time. On the other hand, the remaining students could neither provide answers during the pre-test nor unveil any particular strategy as noted as follows:

- قريت section لي فيها هاذ الكلمات ... hum و عاودت قريت باش نقد نفهم المعنى من contexte.

- I have read the section around these words to figure out their meaning and guess also their contextual meaning. (Student A).

- Je savais بلي كاين هاذ الكلمة بالفرنسية (colossal)، donc فهمت بلي المعنى نتاعها ي كبيرةِ

- Prof نتاعها نتع lycée قراهانا هذ الحكاية، و تفكرت بلي flooded معناها sink و لا نفيض.

- I have already known that the word 'colossal' has a Latin origin, (in French colossal), so I could understand its meaning.
- Our teacher, of the secondary school, acquainted us with this story, and I could remember the meaning of floated. (Student C).

Above all, one may claim while analysing the data obtained from the learners' verbalized protocol that they do possess some cognitive strategies since they reported using them during the implementation of think-aloud, however, it was clearly felt that they almost have absolutely no metacognitive strategies as was better proved in the preceding tables.

Table 9. *The type and frequency cognitive and metacognitive reading strategies in TAP1 and TAP*

	Strategies employed	**TAP₁**	**TAP₂**

		Frequency	**Frequency**
Predicting.	- Integrating one's background knowledge.	10	07
	- Making inferences.	00	01
	- Identifying key words.	01	04
	- Advance organizers.	01	00
	- Planning ahead.	00	02
	- Translation.	01	00
	- Self-management.	01	04
	- Re-reading.	00	01
Skimming.	- Finding key words.	04	05
	- Summarizing.	00	01
	- Self management.	03	06
	- Skipping unnecessary details.	02	02
	- Re-reading.	02	02
	- Integrating one's background knowledge.	03	02
	- Directed attention.	01	00
	- Reading with a purpose.	01	00
	- Skimming as needed.	01	00
	- Selective attention.	00	02
	- Translation.	01	00
Scanning.	- Scanning.	01	00
	- Re-reading.	00	01
	- Selective attention.	06	03
	- Highlighting important ideas.	08	06
	- Linking sounds with visual imagery.	01	01
	- Identifying key words.	00	01
	- Ignoring unnecessary details.	01	00
	- Self-management.	01	01
Inferring.	- Re-reading.	01	02
	- Summarizing.	00	03
	- Self-management.	**03**	02
	- Circling key words.	01	00
	- Self-questioning.	00	01
	- Selective attention	01	03

	- Note-taking.	00	01
Guessing from the context.	- Self-management.	01	03
	- Self-monitoring.	01	01
	- Re-reading.	01	00
	- Translation.	00	00
	- Knowledge transfer.	00	01
	- Activating content schemata.	00	01

Discussion of the Results

In an attempt to consider the results obtained from think-aloud in the pre-training and post-training phases, one may notice that the most frequently used metacognitive strategy was integrating one's background knowledge; which was employed ten times during the first and seven times during the think-aloud protocols; while the least frequent metacognitive self-management, directed attention, and self-monitoring strategies which were all evidenced not more than three times as far as the strategies unveiled while performing the five reading strategies of predicting, skimming, scanning, inferring and guessing.

Apart from the most frequent and least frequent metacognitive strategies explained previously, it was obviously noticed during the learners' protocols that they did rely on a set of cognitive strategies (as already shown in the table above) among which the most frequent strategy was re-read (employed six times), and circling and identifying key words (employed four times). However, the least frequent of all the cognitive strategies observed in think-aloud TAP1and TAP2 were skimming and scanning as needed (employed solely in the think-aloud two times), summarizing, and linking sounds with imagery (employed one time), knowledge transfer, translation and note-taking strategies as well.

All in all and to put it in a nutshell, it might be worthwhile to note down the following points:

-    First of all, the qualitative and quantitative analysis obtained from think-aloud data has proved the fact that some participants, if not all, have already possessed some strategies which can be categorized into cognitive and metacognitive strategies, which socio-affective ones could not be unveiled during their verbal protocol.

-    Secondly, some strategies; which are clearly identified and objectively explained from the inventory compiled from the works of Barker *et al* (1984), Wilson (1981), Hosenfeld (1977,1979) as well as the inventory which comprises a set of learning strategies categorized into metacognitive, cognitive and socio-affective strategies, which are themselves made up of some sub-categories have not been employed by the learners when being interviewed individually during think-aloud procedure.

-    Finally, the results which were discussed and interpreted in a step-by-step process during this assessment verify the validity of the fourth hypothesis which states that the explicit / integrated strategy instruction can have to some extent positive effect on learners' reading proficiency in EFL setting though results obtained in the present study have not shown statistically significant and remarkable difference in terms of the types and frequency of strategies employed which is probably due to the fact that the learners may have already learnt or possessed effective strategies before coming to the university.

Conclusion

The present article at hand has endeavoured to deal with the results and has offered interpretations for the various findings. It was designed under four research questions that the study has set out to answer. Thus, in the first part the results obtained from learners' questionnaire have helped in answering objectively the first research question which sought to unveil the real causes behind learners' comprehension deficiencies. Then the results, that helped to yield information about what the second research question aimed at revealing, have been considered through analysing the learners' scores of the pre training proficiency test as far as the five reading strategies were concerned .While the third research question which has sought to assess whether the learners are metacognitively aware of the usefulness of reading strategies could be empirically answered once implementing think aloud prior to the strategy training

instruction . The last research question, on the other hand, which was set out to unveil the possible effect of an integrated and direct instruction of metacognitive strategies in reading at awareness raising level on the learners' reading proficiency at EFL setting was answered though a post test and another think aloud making use of course both quantitative and qualitative data whereby to analyse the type and frequency of strategies deployed as well as comparing the result obtained before receiving explicitly strategy training instruction with those obtained once strategy instruction was completed .

Thus, in an attempt to offer convincing answer to the first question, and at the same time confirm the validity of the first stated hypothesis, one may notice that the real causes behind learners' comprehension weaknesses can be either due to:
-    Their incapability to utilize adequately and effectively some cognitive reading strategies and how to transfer them in newly provided situations that condition their application
-    A dilemma which faced the learners particularly when employing the embedded approach which was evidenced by numerous researchers whose findings have clearly proved that such approach generally leads to little use and transfer of strategies to other tasks.

As for the second research question which sought to assess whether the learners already possess some reading strategies or not, the analysis of the pre-test clearly proved that some learners are unable to utilize some reading strategies in the required activities, while others could utilize them in the most convenient way whenever necessary.

As regards the third research question which sought to find out whether the learners are metacognitively aware of the usefulness of the strategies employed during the pre-test, the answers could be empirically and objectively provided once the first think-aloud protocol was conducted. Their verbalized data have proved that not all the learners were consciously aware of the strategies employed, while the others were not. This difference can be regarded as a factor that helps characterize the difference between strategic learners and non strategic ones.

As for the fourth research question, the researcher confirmed the validity of the last hypothesis which states that metacognitive reading strategy instruction at awareness-raising level had to some extent an effect on the learners' reading proficiency and strategy use which was empirically verified during the implementation of the second think aloud protocol.

About the Author :

Mrs Yassamina HAICHA – ABDAT has a master degree in Applied Linguistics and TEFL. She has been concerned with educational linguistics, Didactics , ESP and Research Methodology. She has a five years- experience as a teacher of English in Tlemcen University. Her research field involves: reading skill, foreign language teaching, ESP and needs analysis,

References

Anderson, N. J. (1991). Individual Differences in Strategy Use in Second Language   Reading and Testing. *In Modern Language Journal. 75, 460 – 472.*

Brown, H D. (1994). *Principles of Language Learning and Teaching*. Englewood   Cliffs: Prentice Hall.

Carrell, P. L., Pharis B.G., & Liberto, J. (1989). Metacognitive Strategy Training for ESL Reading. *TESOL Quarterly, 23, 647-678.*

Carrell, P. L. (1998). Can Reading Strategies Be Successfully Taught? *The Japan Association for Language Teaching Journal.*

Chamot, A. U., El Dinary. P.B., & Robbins, J. (1999). *The Learning Strategies Handbook*. White Plains, NY: Addition Wesley Longman.

Davies, F. (1995). *Introducing Reading*. Penguin Group.

Flavell, J. H. (1978). *Metacognitive Development* . In Scandura, J. M., & Brainerd, C .J. (Eds) *Structural / Process Theories of Complex Human Behaviour.* (213-245). The Netherlands: Sijthoff and Wordhoff.

Goodman, K. (1973). Analysis of Reading Miscues. In Smith, F. Psycholinguistics and Reading. New York: Rinhart and Winson.

Hoover, W. A., & Tunner, W. E. (1993). *The Comonents of Reading in* Thompson, *G. B*, & Nichlson, T. (Eds) Reading Acquisition Processes. (1-19), Cleverton, UK: Multilingual Matters.

Hosenfeld, C. (1977). A Preliminary Investigation of the Reading Strategies of Successful and Non-successful Second Language Learners. System (5, 110-123)

Phan, N. (2006). *Effective Reading*. Teachers Article. (11, 1- 4).

Philip, B., & Hua, K. (2006). *Metacognitive Strategy Instruction (MSI) For Reading: Co-Regulation of Cognition*. Unpublished PhD Thesis, University Kebangsaan Malaysia.

Salataci, R& Akyel,A. (2002). Possible Effects of Strategy Instruction on L1 and L2 Reading. *Reading in Foreign Language Journal.14,1.*

Singhal, M. (2001) *Reading Proficiency, Reading Strategies, Metacognitive Awareness and L2 Readers. In Reading Matrix* (1, 01-09).

Smith, F. (1978). *Reading,* Cambridge: Cambridge University Press.

Urquhart, S., & Weir, C. (1998). *Reading in Second Language: Process, Product and Practice*. London: Longman.

APPENDIX A: Learners' Questionnaire

Dear students,

The following questionnaire submitted to you attempts systematically to collect information about your current difficulties you commonly encounter when reading an English text, and assess the strategies you may incorporate to face up these frequent issues.

Therefore, you are kindly requested to answer the following questions by checking on the answer you think it is more appropriate, and make comments when necessary.

1- Age…….
2- gender: male ☐ female ☐
3- Stream of secondary school studies....................................
4- Do you enjoy the Reading Comprehension Module?

    ➢ Yes ☐

    ➢ No ☐

Write why …………………………………………………………………………..

5- During reading sessions, what kind of materials do you find yourself much more motivated in?
    ➢ General ☐

    ➢ Culturally based ☐ Algerian

                        ☐ British

    ➢ Others ☐ Specify …………………………….

6- What do you do if you encounter a word you do not understand?
    ➢ Use other words around it to figure out its meaning ☐
    ➢ Use other reference materials such as dictionaries and textbook indices ☐
    ➢ Pinpoint my problem by sounding it out ☐
    ➢ Ignore it temporally, and wait for clarification ☐

7- What do you do if you come across an entire sentence which you cannot understand?
    ➢ Keep on reading, and hope for further clarification ☐

    ➢ Spot the unfamiliar words and look for their contextual meaning ☐

    ➢ Disregard it completely ☐

    ➢ Read the problematic part of the text ☐

8- When reading an English text, what do you do to remember specific information?
    ➢ Relate it to your prior experience and knowledge ☐

    ➢ Ignore the secondary details ☐

    ➢ Realize I need to remember one point rather than another ☐

9- Before you start to read, what kind of plan do you make to help you understand better?
    ➢ No specific plan is needed ☐

    ➢ Think about what I already know about the topic ☐

- ➢ Think about why I am reading

10- Why would you go back and read the entire passage over again?
   - ➢ I cannot understand the overall meaning of the text
   - ➢ To clarify a particular idea
   - ➢ To summarize the passage

11- According to you, which sentences seem not important in reading passage?
   - ➢ Almost all sentences, otherwise they would not be mentioned at all
   - ➢ The sentences that contain details or facts
   - ➢ The topic sentences that have close relation with the main idea

12- The best reader, according to you, is the one who is capable of ….
   - ➢ Recognizing words
   - ➢ Using dictionary
   - ➢ Integrating the information in the text with what you know already
   - ➢ Differentiate between the supporting details and the unnecessary ones

13- According to you, what are the most important strategies thaÿÿhelp learnÿÿs who have difficulties with reading better understand the text and therefore complete the tasks in appropriate ways?