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Metacognitive Awareness of Reading Strategies among Iranian EFL Learners in an "Input-poor" Environment

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ABSTRACT: The importance of language learner strategies, metacognitive awareness of these strategies, and reading comprehension has been well documented in the first as well as second language research. By contrast, little investigations have been conducted to highlight the role of these components, especially language learners' metacognitive knowledge or awareness of strategies, in the foreign language learning contexts; most notably in *"input-poor"* environments. The study aimed at investigating the frequency of the use and types of reading strategies employed by Iranian EFL university students in an input-poor environment. In doing so, a questionnaire, namely the Survey of Reading Strategies (SORS) was administrated to 144 EFL students at Tonekabon Islamic Azad University, Iran. The analyses of the SORS through using descriptive statistics showed that these students were almost moderately aware of reading strategies. They most frequently used Problem-solving strategies (Mean= 2.67), followed by Global strategies (Mean= 2.54) and Support strategies (Mean= 2.40). Based on the results, several implications and suggestions for further research are offered for improving EFL learners' metacognitive awareness of reading strategies in an input-poor environment where conscious attention to learner strategies certainly merits closer consideration than unconscious acquisition caused by exposure to ample foreign language input outside the classroom.

KEYWORDS: Metacognition, Metacognitive Awareness, Metacognitive Strategy Instruction, Language Learner Strategies, Learner Autonomy, Self-regulation, Strategic-based instruction, Input-poor Environment.

1 INTRODUCTION

Reading comprehension as a highly convoluted and multifaceted skill requires readers to possess the knowledge of skills and strategies and ability to apply them effectively in arriving at writer's intended meaning. It is well documented that self-regulated and accomplished readers enjoy a variety of cognitive and metacognitive skills and demonstrate a remarkable capacity to exploit them before, during, and after reading for meaning construction and learning purposes ([1], [2]). "Skilled readers often engage in deliberate activities that require planned thinking, flexible strategies, periodic self-monitoring… [whereas] novice readers often seem oblivious to these strategies and [even] the need to use them" ([3]).

Metacognition appears to be the cornerstone of thoughtful, active, and successful reading (e.g., [4], [5]). Such metacognition "entails knowledge of strategies for processing texts, the ability to monitor comprehension, and the ability to adjust strategies as needed" ([4]). Therefore, if metacognitive strategies are a key distinctive characteristic of skilled readers from unskilled or less skilled ones as well as an integral part of reading comprehension , and this is truly so, so as to develop independent self-regulated and proficient readers, metacognitive strategies instruction deems essential and is an imperative that should be integrated into reading comprehension instruction.

This study is an attempt to find out what learner strategies students use in their reading comprehension in an input-poor environment as well as to what extent they have developed those strategies. Mahdavi (2013) [6] postulated that the English language learning environment in Iran can be characterized as an "*input-poor*" environment defined by Kouraogo (1993) as

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those learning environments in which little opportunities were provided for the learners to practice and learn the language outside or even inside the classroom" ([7]).

1.1 LANGUAGE LEARNER STRATEGIES

Learning strategies are "special thoughts or behaviors that individuals use to comprehend, learn, or retain new information" ([8]). There is a general consensus among scholars that teaching learner strategies to less successful language learners would help them become more active and independent language learners ([9], [10], [11], [12]). "The use of strategies embodies taking active, timely, coordinated responsibility for learning. This is both learnable and teachable" ([13]).

It is most probable that a language is "the most complex set of skills one could ever seek to acquire" ([14]); hence, what Brown calls 'strategic investment' deems essential for learners to gain mastery over language.

Oxford (2008) noted that "learning strategies are generally signs of learner autonomy" ([13]). Hsiao and Oxford (2002) acknowledged that "[l]earning strategies for L2s help build learner autonomy, which requires the learner to take conscious control of his or her own learning process" ([12]). What seems to be quite clear is that proficient L2 learners show strong tendency to possess and employ a wide array of strategies than less proficient learners ([10], [13]).

As to the importance of learning strategies in FLLIPE (foreign language learning in input-poor environments), Kouraogo (1993) maintains that in such environments the use of conscious strategies would afford better chances for improving language learning than unconscious language acquisition through input ([7]) .

1.2 METACOGNITION

To put it simply, metacognition refers to "thinking about thinking" and regulation of this thinking or our ability to know what we know and what we don't know ([15], [16]) and it is comprised of metacognitive knowledge and metacognitive regulation. Metacognition was also characterized by Flavell as a "promising new area of investigation" ([15]).

O'Malley and Chamot (1990) emphasized the crucial role that metacognition plays in learning by noting that "students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions ([8]).

Metacognition nurtures independent thinkers and lifelong learners who are able to grapple with new situations and learn how to learn and continue to learn throughout their lifespan in this hectic pace of life ([17], [18]). However, learning how to be mindful and manager of one's own learning is not inherited, nor does it happen naturally and overnight, it necessitates specific instruction of basic metacognitive skills and strategies.

Metacognition "has the potential to empower students to take charge of their own learning and to increase the meaningfulness of students' learning" ([19]), it also encourages learners to 'learn what to do when they don't know what to do' ([20], [21]). Similarly, Chamot et al. (1999) stated that "metacognition or reflecting on one's own thinking and learning is the hallmark of the successful learner" ([22]).

1.3 READING COMPREHENSION AND METACOGNITION

Undoubtedly, the penultimate goal of reading is comprehension or the reconstruction of meaning from the text, and understanding text necessitates knowledge and execution of a variety of strategies deliberately and independently. If not the most important, students' metacognitive awareness (knowledge) and control (regulation) of reading, beyond any dispute, are one of the most important ability pertinent to reading comprehension. To ensure that comprehension is occurring, the reader draws on the power of metacognitive knowledge and regulation, a volitional process that empowers him or her to exploit a variety of strategies which deems essential for monitoring and taking charge of the reconstruction of meaning while reading.

Thus, metacognition is the student's capacity to plan, monitor, and, if necessary, re-plan various reading strategies in the service of comprehension. Baker and Brown (1984) contended that metacognition is an integral part of reading comprehension largely due to the fact that in understanding a text, readers must be aware of and control the cognitive activities necessary to communicate with the text and author's intended meaning ([23]).

As Duffy (2005) puts it, metacognition in reading instruction is linked to reading strategies [24]. To be more precise, metacognition is about flexible knowledge of reading strategies, selecting well-matched strategies consistent with specific situations, and implementing and orchestrating a variety of strategies. Students who consistently demonstrate good

comprehension tend to possess a repertoire of well-developed metacognitive skills and flexibly use them; moreover, they are aware and assume a degree of control over their intellectual activities as they read. In a nutshell, effective readers are metacognitive, and metacognitive readers know what strategies to apply, how, when, and why to apply them; furthermore, they plan, monitor, evaluate, and regulate their own reading ([25]).

Metacognition is comprised of two basic elements when applied to reading context, namely metacognitive knowledge or awareness and metacognitive regulation or control. Metacognitive knowledge is further subdivided into three other categories: declarative knowledge or knowing how (knowledge about self-characteristics, task characteristics, and task-relevant strategies), procedural knowledge or knowing how to use the different strategies involved in the construction of meaning from the text successfully, and conditional knowledge which refers to knowing when and why to apply strategies. Metacognitive regulation also encompasses planning, monitoring, and revising strategies. In teaching readers to be metacognitive, what seems to be vital is the incorporation of both aspects of metacognition into a training program.

O'Malley and Chamot (1990) classified metacognitive strategies for a successful reading into these five categories:

1. Advance organization which involves previewing the main ideas or concepts of the material, often by skimming, to create a linkage between the previous knowledge and the new topic is going to be learned.
2. Organizational planning refers to planning the reading tasks, identifying the parts, the sequences or main ideas that would help comprehending of a text.
3. Selective attention is deciding in advance to focus on specific aspects of input, often by scanning for key words, concepts, and discourse markers.
4. Self-monitoring relates to one's monitoring and checking one's comprehension during reading.
5. Self-evaluation refers to one's assessment on how well the reader has accomplished a reading or learning activity after its completion. ([8])

The study endeavors to answer the following questions:

Research question 1: Are Iranian EFL students high, medium, or low reading learner strategy users?

Research question 2: What are the most and the least frequently used categories of reading learner strategies by Iranian EFL learners in an "input-poor" environment?

Research question 3: What are the most and the least frequently used individual reading learner strategies by Iranian EFL learners in an "input-poor" environment?

2 MATERIALS AND METHODS

2.1 INTRODUCTION

This section provides a brief account of the design of the study, the participants, instrument, procedures, and data analysis methods. This study examined whether metacognitive strategy training enhanced the EFL students' reading proficiency in an input-poor environment.

2.2 DESIGN OF THE STUDY

To gain new insights into vocabulary learner strategies EFL students in an input-poor environment apply, a qualitative research design has been used to serve the objectives of this study.

2.3 PARTICIPANTS

The students who took part in the study were consisted of 144 university students (80 males and 64 females), 18-24 year-old majoring in biology at Islamic Tonekabon Azad University, Iran. Selection of the participants for the study was based on a simple random sampling from the five hundreds freshmen university students enrolled in biology faculty.

2.4 INSTRUMENTATION

The researcher in the present study used a self-report measure, Survey of Reading Strategies (SORS) developed by Mokhtari and Sheorey (2002) with the intent to "measure adolescent and adult ESL students' metacognitive awareness and perceived use of reading strategies while reading academic materials such as textbooks" ([26]). The Survey of Reading Strategies (SORS) was field-tested by its originators on a population of ESL students studying at two universities in the United States and revealed consistent results relative to the instrument's reliability (internal reliability= .89 or better) which is indicative of a reasonable degree of consistency in measuring awareness and perceived use of reading strategies among non-native students of English (see [27], for more details).

The students read each statement of the original 30-item SORS and rated how often they used the strategy depicted in the questionnaire items using a 5-point Likert-type scale ranging from 1 (I *never* or *almost never* do this) to 5 (I *always* or *almost always* do this). The SORS measures three broad categories of reading strategies: global reading strategies, cognitive strategies, and support strategies. Global Reading Strategies (GLOB) or metacognitive strategies refer to those conscious and planned methods for the purpose of monitoring and managing reading comprehension such as having a purpose in mind or using typographical aids (e.g., tables, figures) and contains 13 items ([26]).

Problem Solving Strategies (PROB) or cognitive strategies "are the actions and procedures that readers use while working directly with the text. These are some techniques that learners make use of them when there are some problems in understanding passages such as guessing the meaning of unknown words or rereading the text for improving the comprehension and includes 8 items ([26]).

And finally Support Strategies (SUP) are those supportive techniques which help the reader to comprehend the passage such as dictionary use or highlighting textual information ([26]).

2.5 PROCEDURES

About 160 copies of SORS were distributed among the participants at the individual class periods and were administered with the help of the classroom instructors. The students were informed of the purpose of the questionnaires and of the fact that there were no right or wrong answers, and asked to express their honest opinion by choosing the appropriate number printed on the right side of each SORS statement. The completion of the SORS took about 15 minutes. Each completed survey was manually examined, and, after discarding the incomplete ones, 144 participants managed to complete the questionnaires appropriately and then those questionnaires were coded for statistical analysis.

2.6 DATA ANALYSIS

Descriptive statistical procedures were used to analyze the data obtained from the SORS to provide insight into EFL learners' metacognitive awareness and use of reading strategies. It was sought to examine reading strategy use among the students on the SORS scales, which ranged from 1 to 5, through three types of usage levels proposed by Oxford and Burry-Stock (1995, p. 12) for general language learning strategy usage: **high** (mean of 3.5 or higher), **medium** (mean of 2.5–3.4), and **low** (2.4 or lower) [29].

3 RESULTS

The basic idea behind the survey study was to throw light on Iranian EFL learners' metacognitive awareness of reading strategies and whether they are high, medium, or poor vocabulary strategy users. The data regarding to research questions were analyzed and tabulated in the following tables. To interpret the results of the SORS, Oxford and Burry-Stock's usage levels have been used: **high** (mean of 3.50 or higher), **medium** (mean of 2.50–3.49), and **low** (2.49 or lower).

Research question 1: Are Iranian EFL students high, medium, or low reading learner strategy users?

The mean value for the learners' overall reading strategy use was 2.54. Therefore, the analysis of data obtained from SORS revealed that Iranian EFL learners are **medium** reading strategy users based on three usage levels proposed by Oxford and Burry-Stock (1995) ([28]): **high** (mean of 3.50 or higher), **medium** (mean of 2.50–3.49), and **low** (2.49 or lower).

Table 1. Score analysis for overall vocabulary strategy use

Mean	S. D.	Min	Max
2.54	0.323	2.06	3.13

Research question 2: What are the most and the least frequently used category of reading learner strategies by Iranian EFL learners in an "input-poor" environment?

Table 2 shows the most and the least frequently used category of reading learner strategies on the SORS by Iranian EFL learners. The most frequently used category of strategies was problem-solving strategies with the mean value of 2.67 followed by global strategies (M= 2.54) and support strategies (M= 2.40).

Table 2. Rank order of categories of strategies from the most to least frequently used category

General categories on SORS	Mean	S. D.
Problem-solving Strategies	2.67	0.485
Global Reading Strategies	2.54	0.440
Support Reading Strategies	2.40	0.366

Research question 3: What are the most and the least frequently used individual reading learner strategies by Iranian EFL learners in an "input-poor" environment?

Table 4a shows the least frequently used reading strategies by the learners. Translation from L2 to L1 (M= 3.13), Re-reading for better understanding (M= 3.00), Setting a purpose for reading (M= 3.00), Staying focused on reading (M= 2.96), Using typographical aids (M= 2.93), and Using prior knowledge (M= 2.93) were among the most frequently used individual reading strategies by the Iranian EFL learners.

Table 3a. Rank order of the most frequently used reading strategies

Strategies	Categories	Mean	S. D.	Rank	Levels
Translation from L2 to L1	SUP	3.13	0.994	1	**Mid**
Re-reading for better understanding	PROB	3.00	0.946	2	**Mid**
Setting a purpose for reading	GLOB	3.00	1.144	3	**Mid**
Staying focused on reading	PROB	2.96	0.614	4	**Mid**
Using typographical aids (e.g. italics)	GLOB	2.93	1.048	5	**Mid**
Using prior knowledge	GLOB	2.93	0.944	6	**Mid**

In terms of individual reading learner strategies, the learners reported to use Using context clues (M= 1.96), Asking oneself questions (M= 2.06), Reading aloud when text becomes hard (M= 2.10), Going back and forth in text (M= 2.20), Comprehension monitoring (M= 2.20), and Pausing and thinking about reading (M= 2.20) less frequently than any other reading strategies.

Table 3a. Rank order of the least frequently used vocabulary strategies

Strategies	Categories	Mean	S. D.	Rank	Levels
Using context clues	GLOB	1.96	0.964	1	**LOW**
Asking oneself questions	SUP	2.06	1.014	2	**Low**
Reading aloud when text becomes hard	SUP	2.10	0.999	3	**Low**
Going back and forth in text	SUP	2.20	0.935	4	**Low**
Comprehension monitoring	GLOB	2.20	0.996	5	**Low**
Pausing and thinking about reading	PROB	2.20	1.096	6	**Low**

4 DISCUSSIONS AND CONCLUSIONS

The findings from this study on the reading learning strategies used by EFL learners in an "input-poor" environment suggested that the students showed awareness of almost all of the reading strategies included in the SORS, but their awareness of those strategies was not highly developed, and most of them were used at a low or medium frequency. No individual strategy was used with high frequency. The most frequently used strategy was translation from English into Persian with the mean of 3.13 and the least often used individual strategy reported to be using context clues with the mean of 1.96.

To conclude, Strategic-based instruction (SBI) in reading strategies deems essential for improving students' reading comprehension in this input-poor environment. The students learn to apply these strategies successfully through practice with different texts, and over a long period of time. Knowing the strategies (what the strategy is) may not be translated into actual use of those strategies ([27]). Strategy instruction can provide a lot of opportunities for the readers practicing these strategies to deepen their understanding of them and to make them aware of howness, whyness, whenness, and whereness of their use. In the long run, placing emphasis on as well as devoting energy and attention to teaching strategies which enhances self-regulation empowers learners to become active learners.

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