The Incorporation of Self-Questioning Training in the Reading Comprehension Course: The Case of Moroccan EFL University Learners

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Abstract
This study sets out to examine the role of self-questioning training in improving EFL university learners’ reading potentiality. It shows the extent to which instruction in self-questioning, as a metacognitive strategic move, can reinforce the learners’ reading behavior in coping with the written discourse. To meet this objective, a total of 113 first-semester university students participated in this quasi-experimental study. The data were collected by means of such instruments as the reading texts (i.e., narrative, expository), ‘self-report questionnaire’ and self-questioning instruction. The experimental group received training in self-questioning during the reading comprehension sessions (14 sessions) whereas the subjects in the control group (50) took their regular classes. The results show that the learners in the treatment condition considerably improved at the level of self-questioning usage across the pre-post-treatment stage. Thus, the study recommends that the technique of self-questioning be teachable and worthy of central importance in the higher education context.

Key words: Reading comprehension; Self-questioning; Strategy training; Strategy use

1. INTRODUCTION
It is true to state that the marked shift in the field of psychology from the behaviourist approach to the cognitive one has had a considerable impact on second/foreign language reading. Granted this, the subject matter of this study is addressed within the general framework of cognitive theorizing (e.g., Shuell, 1986; Matlin, 2005). Given the fact that reading is conceptualized as a mental process entailing the use of a vast range of strategic techniques, it is essential that the strategy of self-questioning be ascribed the prime importance in facilitating the process of developing sense of the written text. This explicitly uncovers that textual processing and analysis is dependent on self-questioning which constitutes the key means not only for directing one’s course of analyzing the textual content, but also for attaining more efficient and fuller comprehension.

Prior research addressing self-questioning instruction tended to adopt a move towards the investigation of this issue from multiple perspectives. For instance, a range of studies explored the pivotal value of teaching self-questioning in improving learners’ reading of literary texts within the academic context (e.g., Janssen, 2002; Afzali, 2012). Further, Crabtree, Alber-Morgan, and Konrad (2010) focused on the key role of self-questioning training in enhancing textual comprehension among students with disabilities. Another pertinent study (McCallum, Krohn, Skinner, Hilton-Prillhart, Hopkins, Waller, & Polite, 2011) insightfully features the primary importance of instructing a sample of at-risk high-school students in applying ART (Ask, Read, and Tell) and exposing them to peer discussion (PD) for optimizing their reading behavior. These cited intervention studies did bring about substantial outcomes at the level of reading comprehension improvement and skill development. However, there is a stark paucity of academic research studies on self-questioning instruction in regard to textual reading within the Moroccan context, especially at tertiary level.
In effect, the promotion of effectiveness at the level of reading comprehension among EFL learners can only come into effect if reading strategy instruction takes place. In explicit words, it is not sufficient to maintain the view that Moroccan EFL university learners can naturally and spontaneously use self-questioning during textual reading, but it is necessary to stress the premise that the development and application of this strategy can be readily reflected by EFL learners once they are exposed to explicit training. In this way, the learners’ awareness of the value of self-questioning can be heightened to a substantial degree, and thus conducting the reading act in so effective a fashion. Based on this, the current study is an attempt to put to test this stated view with the purpose of assuring either the marked efficiency or the apparent ineffectiveness of the self-questioning instruction in the reading process. Hence, the significance of the present study lies in its attempt to look into the role of self-questioning training in improving university learners’ strategic reading behavior.

2. LITERATURE REVIEW

2.1 Definition of the Reading Process

Many reading theorists and educational psychologists (e.g., Goodman, 1970; Yang, 2006; Shang, 2011) claim that reading is a cognitive process in which the reader makes use of an enabling set of differing strategies to achieve understanding. Constituting a large part in the language learning process in the field of academia, the receptive skill of reading can be conducted in an effective fashion only if learners are cognizant of the underlying, optimal strategies that facilitate the achievement of textual comprehension. Thus, it is noteworthy to postulate that there exists a strong correlation between the use of reading strategies and the meaning-getting process.

Smith (1982) comes up with a more concise interpretation of the concept of reading comprehension and proposes that it is “the reduction of the reader’s uncertainty” (p.155). This uncertainty lies in the reader’s constant attempts and efforts to understand the underlying meaning of the text. Indeed, before embarking on the reading process, the reader can be almost entirely uncertain about the meaning of the textual content. Thus, he/she predicts and questions what is contained in the written text and it is via this process of predicting and questioning that ‘uncertainty’ can be reduced to a particular level. In this view, Smith (1982) maintains that “comprehension is relative; it depends on getting answers to the questions being asked” (pp.166-167). In this vein, confirming the predictions and finding adequate answers to the questions raised by the readers can contribute, to some extent, to diminishing their ‘uncertainty’, and thus effectively comprehending the meaning.

2.2 Importance of Self-Questioning in Textual Reading

Self-questioning is a metacognitive reading strategy that can be implemented by learners in the process of text comprehension. This strategy “directs the learners’ attention to critical aspects of the text, thereby increasing understanding of important textual elements” (Nolan, 1991, p.133). In essence, the act of asking of a wide range of questions while engaged in reading the text is what helps the student-readers to construct an effectual understanding of the content because raising questions can be deemed conscious, deliberate attempts to find out the relevant ideas and facts that correspond to those stated questions. This particular premise is substantiated by Singer (1978) who maintains that ‘active comprehension’ implies reacting to a text with questions and seeking answers with subsequent reading. Therefore, the fact of generating questions pertaining to the subject matter of the written text can be a promising means for facilitating and gaining thorough comprehension.

Clearly, self-questioning during the reading process assists learners to monitor their understanding in a starkly efficient way. It equips them with the potential ability to check their comprehension of the textual content (Palinscar & Brown, 1984; King, 1992). In other terms, addressing pertinent questions while processing the written passage can guide learners towards the accomplishment of understanding and enable them to ensure that the process of making sense of the information is performed with considerable efficiency. In addition, it can be stated that self-questioning gives learners the opportunity to (a) set the purposes for study, (b) identify and underline important segments of the material, (c) generate questions which require comprehension of the text to be correctly answered, and (d) think of possible answers to the questions (Brown, 1981, p.521). This shows that self-questioning, as a potent metacognitive technique, allows learners, in a sense, to comprehend what is contained in the written material.

2.3 Strategy Instruction

The process of strategy instruction is an indispensable means of allowing learners to adopt and apply the most effective strategies while engaged in coping with diverse types of written texts. Indeed, an entire understanding of what is contained in text passages can be achieved only if learners are adequately trained in the use of strategies. Therefore, strategy instruction can be deemed of potential importance to the acquisition and development of strategies as it certainly assists learners to be ‘self-directed’, ‘self-controlled’ and ‘self-regulated’ in their attempt to make complete sense of textual information.

As noted by Cohen (1998), strategy-based instruction provides the most efficient way for the learner’s awareness to be heightened (p.265). It induces the learners to make use of some effective strategies while
dealing with a cognitive task such as textual reading. Most fundamentally, the learners’ full awareness of the substantive significance of self-questioning and its actual implementation in processing textual content can help them strengthen their metacognitive knowledge of reading and highly enhance their cognitive capabilities in an effectual manner.

Intending to alter the learners’ strategic behavior, strategy instruction can equip them with the capability “to use specific procedures to guide their access to text during reading” (McKeown et al., 2009). This means that learners can internalize greater knowledge of how to apply self-questioning in their effort to unravel the textual content. Based on this consideration, strategy instruction is viewed as a determining, contributing factor that allows learners to monitor and question their cognitive performance in reading. This is what the present intervention study intends to achieve.

3. METHOD
This quasi-experimental study aims to launch an investigation into the effect of self-questioning instruction on Moroccan EFL university learners’ potential to conduct an efficiency-driven kind of reading. For the achievement of this objective, the study is underpinned by a quasi-experimental design with a view to measuring the extent to which the target subjects can advance at the level of self-questioning usage. Thus, two major research questions guided the course taken by the present study:

- To what extent do Moroccan EFL university students use self-questioning in textual reading?
- To what extent does self-questioning instruction improve Moroccan EFL university learners’ reading behavior?

3.1 Participants
The participants were 113 Moroccan EFL university students who took part in this study. They belonged to the English language department at the Faculty of Letters and Human Sciences, Mohammed V- Agdal in Rabat. The two groups were selected at random and the gender issue was not controlled. The first group (n=63) was trained in using self-questioning and the second group (n=50) received no training in this reading-related technique. Both groups were administered two reading comprehension texts (i.e., narrative, expository) at the pre- and post-treatment stage throughout the semester.

3.2 Instrumentation
The instruments tapped on in this study incorporated reading texts (narrative & expository), a ‘self-report questionnaire’, and self-questioning instruction. Indeed, the momentum towards the assignment of the pre- and post-treatment reading comprehension texts is to guarantee whether the process of training the experimental group in generating critical and introspective questions while being involved in textual reading can have any potential influence on the EFL learners’ reading behavior and processing skills. Hence, the study will reveal the degree to which the undertaken training in self-questioning is of vital importance as many previously conducted studies (e.g., Dole et al., 1991; McCallum, et al., 2011) suggest. Obviously, the reading comprehension texts used in this experimental study are identical in format and are comparable, to some extent, at the linguistic level.

The other instrument made use of is the ‘self-report questionnaire’ for gaining insights pertaining to the EFL learners’ usage of self-questioning. It is an effectual technique of eliciting retrospective data on the nature and typology of questions that EFL university learners invoke in their attempt to generate efficient sense of the textual input. Accordingly, the use of this kind of questionnaire emanates from the principal view that it is a certain measurement tool that substantially provides rich insights into the process of self-questioning employed in textual analysis (e.g., Anani Sarah & Reihani, 2010; Shellings, 2011). In addition to uncovering how self-questioning is utilized by the target learners, the operated questionnaire is intended to measure the extent to which the techniques of self-questioning can be acquired by the experimental subjects through the strategy training as compared to the control group which remained intact.

As to the self-questioning training, it constitutes an essential part of this quasi-experimental study. It aims at equipping Moroccan EFL university students with the technique of self-questioning for processing and analyzing textual discourse. Obviously, the experimental group was exposed to the process of practising and applying self-questioning in approaching the written discourse (i.e., narrative, expository) for the whole semester (Semester One). The adoption of this kind of training can be of great support for the subjects to consolidate their knowledge pertaining to diverse types of critical and metacognitive questions and initiate them into the practice of self-questioning in varying ways for constructing the textual content more effectively.

3.3 Procedure
Prior to the intervention, the participants belonging to the control and the experimental groups were assigned two reading comprehension texts (i.e., narrative, expository) which consist of four major tasks (e.g., wh-questions, meaning inferring, paraphrasing, summary writing). Upon finishing the reading procedure and providing the responses, they were required to fill out the ‘self-report questionnaire’ with a view to figuring out the types of queries that they invoked in the course of analyzing and developing sense of the textual content.

Self-questioning training was received by the experimental group for a semester-long period. Notably, throughout the training sessions (12 sessions), a handful of
reading comprehension texts of narrative and expository type were assigned to the EFL group under investigation. This can allow the target EFL learners to call upon the technique of self-questioning that can ensure an in-depth analysis and full comprehension of the content, and thus promote their text-analysis abilities while coping with subsequent written discourse. The treatment group was instructed in generating critical questions in the reading process such as: (a) what am I attempting to understand? (b) What shall I read first? (c) What does this concept mean? (d) Did I understand the meaning in this paragraph/section? (e) Why did the author/writer state these ideas? (f) What strategies am I utilizing? (g) Is my comprehension taking place?

At the conclusion of the self-questioning training which exposed the learners in the treatment condition towards constructing an effective understanding of what is stated in the printed text, two post-reading comprehension texts (i.e., narrative, expository) were assigned to the participant EFL groups (e.g., control and experimental). This was coupled with the ‘self-report questionnaire’ for revealing if the treatment group had fostered self-questioning as a promising strategy for coping with the academic written texts.

The data gathered by means of the ‘self-report questionnaire’ were computed through the Excel software Program (version 2007) to show the effect of self-questioning training on the target subjects’ text processing abilities. The reported data related to the orientation of this study were numerically counted in percentile forms and turned into illustrative figures.

4. RESULTS & DISCUSSION

4.1 EFL Learners’ Use of Self-Questioning in Textual Reading

Based on the reported data in Figure 1, it is observed that the strategic technique of coming up with some ‘directive’ and ‘self-regulated’ questions during the reading process was starkly lacking among the sampled EFL subjects at the pre-intervention level.

As reflected above, it can be said that, whereas none of the subjects in the control group claimed that they engaged themselves in the process of self-questioning about the textual content, only 3.17% of EFL student-readers belonging to the experimental group confirmed that they used this strategy in their reading of the narrative and expository written texts. This was a clear manifestation that the strategy of self-questioning, which is part and parcel of metacognitive awareness and critical thinking, is not frequently used by first-semester EFL learners since it entails, as assumed, the exertion of a large amount of mental efforts and cognitive capacities.

4.2 Impact of Self-Questioning Instruction on EFL Learners’ Reading Behavior

It should be noted that the sampled EFL student-readers exposed to the experimental treatment did develop and acquire the strategy of self-questioning in trying to comprehend the narrative and expository texts. The following figure illustrates the reached results.

It can be inferred that the positive impact of training in self-questioning on the sampled EFL learners was prevalent at the level of textual processing. In effect, by drawing a certain comparison between the control group and its counterpart, the experimental group, at the post-treatment level, it appears that self-questioning instruction did play an eminent role in enabling the target EFL student-readers to conduct their reading of the assigned written texts (e.g., narrative, expository) in an efficient manner. The frequency of self-questioning use from the pre- to the post-treatment stage increased to a significant level with somewhat equal percentages of 68.25% and 69.84% for the narrative and the expository written
discourse respectively. By contrast, self-questioning was employed by the non-treatment group at the post-
intervention stage with a percentage of 8% for the narrative and expository written texts.

![Use of Self-questioning](image)

**Figure 2**
EFL learners’ self-questioning in textual reading at post-treatment stage

Most notable, the overwhelming majority of the participants did not tap the process of self-questioning the content of the given written texts (e.g., narrative, expository) before the intervention. This particular fact corroborates the foundational view that most EFL first-semester learners have a greater tendency to process the text content without querying the author’s/writer’s stated conceptualizations and without monitoring their progressive development in building an effective understanding of the texts. What can be claimed is that, in trying to make sense of both the narrative and expository written texts, the EFL learners tend to approach them with no conscious attempt at coming up with pertinent questions that can guide their conducted process of reading more critically and efficiently.

As a substantive part of the strategic reading behavior, the potential of bringing forward some ‘self-regulated’ questions during textual reading can direct the readers’ attention and processing abilities towards building an efficient understanding. In effect, as Taboada and Guthrie (2006) affirm, questions can initiate cognitive processes (p.4). This explicitly reveals the overall contribution of the learners’ initiated questions to the derivation of meaning included in the reading passage. Actually, the large majority of the treatment participants declared that they resorted to a set of ‘self-generated’ questions to which they were exposed during the training.

Obviously, central to the meaning-construction process is the learners’ potential ability to question the text content throughout the reading process because not only can questions relating to the text content be posed by the EFL learners before the engagement in the reading act, but they can also be raised during and after the text processing operation. This indicates that constant evaluation of one’s understanding of the core conceptualizations that underlie the written text is primarily based on the inquiry into what the writer/author intends to convey. In this view, ‘high-order’ questions, which initiate the readers into thinking and reasoning critically about the reading text, can provide a framework within which the target meaning can be obtained. Hence, the statement of questions that enable a sense of reasoning whilst reading the written discourse can enhance the comprehension of textual input. This is in accord with prior research (e.g., Janssen, 2002; Taboada & Guthrie, 2006; McCallum, et al., 2011; Afzali, 2012), proving that self-generated questions substantially result in positive variation at the level reading comprehension.

In fact, the EFL learners’ lack of involvement in querying the ideologies and views stated in the texts, namely at pre-intervention stage, can be a marked inefficiency both at the level of text analysis and meaning interpretation. For the purpose of clarity, the reading act, which entails the interplay of a wide spectrum of cognitive processes and monitoring capabilities, can only be effective if learners pose some relevant questions while encountering some unclear statements/ideas of the passage content. In this way, the flexibility and smooth progress in terms of textual understanding can be conducted in an efficacious way as long as readers deeply interact with what is stated in the written discourse. Thus, raising questions whilst analyzing the text meaning can be viewed as the setting of guidelines that are contributory to the ease with which the textual content can be comprehended.

For illustration purposes, the EFL learners’ effective performance in text assimilation can be based on the amount of ‘self-directed’ questions which allow for the interpretation of the reading passage. Therefore, the learners can vary at the level of the comprehension...
achievement which is partially governed by the questioning skills enabling them to extract the conceptual message that is intended by the writer/author. This can be observed when we draw a comparison between the control and experimental group participants at the post-treatment level. The treatment group did manage to foreground some ‘regulatory’ questions. Actually, the type and nature of the questions reported by the learners, who were exposed to the self-questioning training, did strengthen their mastery of the text content. This stated principle is in complete concordance with an array of previous studies which advocate the usefulness of the role of strategy training in improving the learners’ reading performance (e.g., Padrón, 1992; Janssen, 2002; Crabtree, et al., 2010; McCallum, et al., 2011).

CONCLUSION

This study aimed at exploring the role of self-questioning instruction in enhancing university EFL learners’ potentiality in EFL textual reading. It sought to reveal the importance of engaging in self-questioning for the sake of facilitating textual understanding among EFL learners.

The findings provided thorough insights as pertains to the practical application of self-questioning in academic EFL reading. The internalization of this purely metacognitive ‘heuristic’ among the treatment subjects can place a higher premium on the critically beneficial role of self-questioning training in expanding the Moroccan EFL learners’ strategic potentiality in approaching written passages. This proves the fact that there exists a somewhat firm connectivity between the learnability of self-questioning and the textual comprehension enhancement so long as raising questions during the reading act gives learners explicit directions towards constructing an effective understanding of the text message.

Therefore, the process of instructing EFL learners in self-questioning can be the differentiating factor between the control and the experimental group. The subjects of the latter group did engage in some questioning processes that assisted them to handle the given written texts (e.g., narrative, expository) at the post-intervention level. Thus, a broad host of the self-initiated questions resorted to by the treatment group throughout the textual reading process were fundamental pre-requisites that improved their text-processing performance. Stating some metacognitive questions whilst reading helped the target EFL learners formulate a thorough outline for understanding the ideologies and views that make up the core of the texts. Hence, it is assumed that self-questioning can alert learners to the underlying message of the written text. In this sense, it is implied that the explicit recognition of the worth of instructing the learners in how to form the content-based questions while attempting to construct the text meaning is to be emphasized since it gets them acquainted with both the importance of the questioning strategy and the way it is operated in the course of textual analysis and interpretation.

It is clear that the study encountered some limitations. One limitation is bound up with the gender variable as an intervening factor. Considering that the study was primarily concerned with testing the conceived impact of self-questioning training on the EFL learners’ reading behavior, it did not take account of the frequent use of self-questioning among the male subjects as opposed to the females belonging to the treatment group. Obviously, it can be estimated that the EFL female learners could reflect more substantial engagement in self-questioning than the EFL male learners or vice versa after being exposed to the intervention. Another limitation relates to the instrumentation used in this study. Given the vitality of triangulation, it is recommended that prospective related research be predicated on a multiplicity of data collection techniques such as interviews and self-reports for consistency purposes.

REFERENCES


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