The Effect of Self-assessment on the Development of EFL Reading Comprehension Skills

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Abstract

Using self-assessment as part of reading courses is key to improving reading comprehension skills. This study aims at exploring how self-assessment develops EFL students' reading comprehension skills. It was conducted with a sample of 40 students enrolled in the English Department, University of Algiers 2 during the first semester of the academic year 2020/2021. To collect data, an embedded mixed-methods research paradigm was used which involved collecting both quantitative and qualitative data. The quantitative data were test scores collected as part of a pre-experiment. The pre-experiment involved administering a pre and post reading test and implementing a treatment. The treatment implemented was a self-assessment of reading strategies checklist. The qualitative data were obtained by means of an open-ended interview on participants' reading strategies. Quantitative data were analysed by calculating the mean score and the t-test, while qualitative data were analysed using content analysis. The findings indicated that self-assessment helped the students to increase test scores and to develop their reading strategies. It enabled them to plan, monitor, and evaluate their reading process by implementing different strategies and techniques. Drawing on these findings, it is suggested that English teachers use self-assessment of reading strategies as part of reading courses, since it can improve students' reading comprehension skills and strategy use.

Keywords: EFL (English as a Foreign Language); meta-cognition; reading skill; reading strategies; self-assessment

Introduction

This study is conducted in response to the absence of self-assessment in the English Department, University of Algiers 2. Despite the LMD reform of higher education which took place in 2005 and put the learner at the centre of learning, the Algerian educational system is still feeding partly from the transmission approach to education. Moreover, knowing that research on self-assessment is quite limited in the context under study, there is a need to extend existing knowledge on the role of self-assessment in developing reading comprehension skills.

Self-assessment is a self-monitoring process which trains learners in using metacognition (Esteve, Trenchs, Pujola, Arumi, & Birello, 2012). This means that when learners self-assess, they steer metacognitive processes. Metacognitive processes encompass metacognitive experiences, metacognitive knowledge, and self-regulation skills (Iwai, 2011). Metacognitive knowledge refers to knowledge of task requirements and strategies. Metacognitive experiences are the ability to diagnose breakdowns in performance through reflection and problem-solving (Tarricone, 2011). Self-regulation skills involve the execution of meta-cognitive strategies, mainly, planning, monitoring, and evaluating (Iwai, 2011). Metacognitive strategies refer to a set of higher-order processes that are responsible for diagnosing weaknesses in performance and executing cognitive strategies (Tarricone, 2011). The use of metacognitive strategies is a self-regulatory process.

To expand, Self-regulation is the ability to execute and monitor the use of cognitive strategies. It involves planning, monitoring, and evaluating (Perez Cavana, 2012). To explain, regulation of cognition is the ability to select appropriate strategies, monitor the effectiveness of the strategies used, evaluate outcomes, and planning action accordingly (ibid.). When applied to reading, self-regulation can enhance comprehension monitoring (Nergis, 2013).

Mastering reading comprehension is not easy as people think because reading comprehension needs hard effort (Martina, Syafryadin, Rakhmanina, 2020; Dhillon, Herman & Syafryadin, 2020; Martina, Syafryadin, Utama, 2020; Wibowo, Syafrizal, Syafryadin, 2020). Therefore, we need also monitoring. Comprehension monitoring is necessary for successful reading. It involves the use reading strategies; namely, planning, monitoring, and evaluating strategies (Yuksel & Yuksel, 2012; Estacio, 2013). The ability to monitor reading comprehension can be improved through self-evaluation of reading processes (Ditzel, 2010). This means that self-assessment can prepare learners to develop metacognitive awareness of reading processes. Eventually, they become able to self-regulate their reading by sequencing reading strategies according to task demands. As a result, they can improve their reading comprehension skills.

Skilled reading depends on applying reading strategies. These involve planning, monitoring, and evaluating strategies. Planning strategies involve goal-setting, asking questions, and activating prior knowledge. Monitoring strategies encompass organising information in the text, making predictions, making inferences, identifying main ideas, interpreting and evaluating one's understanding of the text, developing a representation of the text by integrating ideas, and monitoring understanding. Finally, evaluating strategies include the use of strategies such as asking questions for understanding, summarising, and re-reading (Tavakoli, 2014).

Accordingly, one can consider that using self-assessment as part of reading courses can enhance self-regulation, a component of metacognition which is regarded as an important aspect for developing skilled reading. In addition, the use of self-assessment allows learners to be reflective, autonomous, and capable of evaluating their reading without constant reference to the teacher.

The potential impact of using self-assessment on the development of reading comprehension was investigated in previous studies; e.g., Shahrakipour (2014) and Baniabdelrahman (2010).

Shahrakipour (2014) investigated the impact of using self-assessment on the development of EFL learners' reading skills. The sample included 120 Iranian language learners. Self-assessment sheets of reading were administered in the treatment session. Using a reading comprehension test, it was found that the use of self-assessment improved the participants' reading skills.

Baniabdelrahman (2010) also found that self-assessment can improve reading skills. The researcher conducted a study with a sample of 136 students. The treatment consisted of implementing self-assessment of reading. Results indicted a significant difference between the mean score of the experimental and the control group on the post-test.

While these studies provided insights on the impact of self-assessment on reading skills, they solely relied on parametric tests or test scores. It remains necessary to understand the use of reading strategies, and in what ways self-assessment develops reading skills. In the literature, there is an extensive focus on the contribution of metacognition to the development of reading comprehension skills. Thus, it is crucial to clarify the impact of self-assessment on reading comprehension skills form a metacognition perspective.

When accounting for the different demands of academic settings, developing reading comprehension skills is of paramount importance. As a result, different approaches such as the use of schema-building tasks, content-based instruction, and explicit strategy training have been used to improve learners' reading skills. Nevertheless, in the field of evaluation, reading is approached from a teacher-centred perspective. With the rise of new Information and Communication Technologies (ICT's), it is highly

recommended to adopt new assessment approaches which are learner-centred such as self-assessment which can promote metacognitive skills and eventually reading comprehension skills. Similarly, in the context under study, self-assessment is absent despite the educational reform that highlighted the role of the learner. The purpose of this study was to investigate the impact of using self-assessment on the development of students' reading comprehension skills. Moreover, it aimed at exploring the strategies that participants use as part of reading after being trained in using self-assessment of reading. The study was conducted in response to the absence of self-assessment in first-year reading classes, in the English Department, University of Algiers 2. The research questions formulated are what is the impact of self-assessment on reading comprehension skills? What strategies did the learners use as part of reading? To reach the aim of the study, an embedded mixed-methods design was implemented. An elaborate description of the methodology, data analysis, discussion, and suggestions are to follow in the rest of this paper.

Research Methodology

The study followed an embedded mixed-methods design. This design refers to conducting an experiment and collecting qualitative data subsequently. The purpose of using this design is to have a better understanding on the impact of self-assessment.

The study was conducted with a first year group (n=40). The sample was taken from a population of first year students enrolled in the English Department, University of Algiers 2. The sampling strategy used was convenient sampling. It refers to selecting available and accessible samples from the wider population (Cresswell, 2014). The sample was composed of 29 females and 11 males. The participants were intermediate in terms of language ability. They were also from the same sociocultural background: Algerian EFL students. The study was conducted during the first semester of the academic year 2020/2021.

First, a pre-experimental design was conducted. The design used was a one group pretest-post-test design. This design involves pretesting a single group, implementing a treatment, and administering a post-test (Cresswell, 2014). First, the researcher administered the pre-test to measure participants' reading comprehension skills. To that end, the participants were asked to read a text and answer a set of reading comprehension questions; open-ended, multiple-choice, and true-false questions.

Subsequently, the treatment was implemented for five weeks as part of five reading sessions. In order to prepare the participants to self-assess, the researcher explained the criteria of the self-assessment activity. The self-assessment activity was a checklist of reading strategies. The aim of using this activity was to train the participants to monitor their reading process and to develop reading strategy use. The activity includes a set of criteria which represent reading strategies. The criteria are brainstorming background knowledge, asking questions, on the text, identifying the main and supporting ideas in a text, summarising, predicting, outlining, elaborating on what is understood, making connections between what is being read and background knowledge, making predictions, and checking one's predictions. The checklist had yes/no columns and a comments section.

After the five-week period, the post reading comprehension test was administered to see if there is a difference between the pre and post-test scores by reference to the use of self-assessment.

Second, the qualitative study was conducted in order to explore the reading strategies that participants used. For qualitative data collection, the researcher conducted an interview with a number of participants (n=15) who had higher scores on the post reading test. The aim of the interview was to gain insights into participants' reading processes and mainly to explore the strategies they used throughout the post reading test. The interview had three main categories with six questions: before reading strategies, while-

reading strategies, and after reading strategies. The questions sought to determine if the students used strategies for the reading process.

The quantitative data were analysed using descriptive statistics. The pre-test and post-test scores were used to calculate the frequency and the mean. To analyse the difference between the means, a null hypothesis was formulated and was tested using inferential statistical analysis.

Qualitative data were analysed using content analysis following a coding and categorising process.

Findings and Discussion

Findings

Two types of data were collected from this study: quantitative and qualitative. The quantitative data included test scores which ranged from eight to three. Average scores equal 5 points. Higher score are above five points. Lower scores fall below five. The data collected from the pre and post-test were analysed using descriptive and inferential statistics. For the descriptive statistical analysis, the scores on the reading comprehension test were used to calculate the frequency and the mean. The scores obtained from the pre and post-test are presented in the following tables:

Table 1: Pre-test scores on the reading comprehension test

Score	Frequency
3	8
4	15
5	6
6	7
8	4

Total	40
Mean	4.7

By looking at the frequencies in table 1, it appears that the number of scores above five is 11, while the number of scores below five is 23. This entails that the majority of the participants had lower scores on the reading comprehension test. Moreover, the mean (*M*=4.7) falls below five. This can indicate that the participants had low reading comprehension skills.

Table 2: Post-test scores on the reading comprehension test

Score	Frequency
8	10
7	15
6	8
5	6
4	1
Total	40
Mean	6.67

From table 2, we can see that the number of scores below five is seven, while the number of scores above five is 33. Overall, this means that the majority of the participants had higher scores on the reading comprehension test after receiving the treatment. The mean of the post-test scores is above the average (*M*=6. 67) and it is higher than that of the pre-test (*M*=4.7). This seems to indicate that the participants developed their reading comprehension skills after the use of self-assessment.

In order to see if the difference between the two means is statistically significant, inferential statistical analysis was used. To that end, the one sample t-test was calculated. First, the null hypothesis was stated that the mean score on the post-test is not statistically significantly higher than the the mean score on the pre-test. Then the t-test was calculated using SPSS. The following values were obtained:

Table 3: One-sample t-test statistics

Variable/ Reading Comprehension Skills	One-sample t-test $(α=0.05)$		
	Mean	t	Sig (one-tailed)
	$μ=6$	3.89	.000185
	6.67		

From table 3, we can see that the t-value (t=3.89) is bigger than the p-value (p=.000185) at α=0.05. Thus, the result is significant at p < 0.05, and the null hypothesis is rejected; i.e.; the mean score on the post-test is statistically significantly higher than the mean of the pre-test scores. This can indicate that the participants may have developed their reading comprehension skills after the use of self-assessment.

Qualitative data from the interview were analysed using content analysis. Content analysis is a process of summarising or reporting written data. It is a technique which helps the researcher make inferences from texts (Neuman, 2014). It involves extracting categories from word-based data. Through content analysis the researcher can identify the relative frequency and importance of certain topics in the text (ibid.).Content analysis starts with a sample of texts. These texts are used to extract units

such as words, phrases, and sentences. The units are coded and placed in meaningful categories or themes. The categories can be compared, and linked together. This allows drawing conclusions and drawing theories from the text (Creswell, 2014).

The technique used to transcribe the data was note-taking which enabled the researcher to obtain the pertinent responses. Participants' responses were read attentively. Then, the emerging categories were highlighted and coded to be grouped in their corresponding themes.

Table 4: Codes and categories from the interview data

Code	Category	Theme
1	Asking questions Brainstorming background knowledge	Planning Strategies
2	Identifying main ideas Identifying supporting ideas	Monitoring Strategies
3	Reflecting on reading summarising reading	Evaluation Strategies

From this table, it appears that the participants applied different strategies as part of reading. Content analysis of participants' responses on the interview revealed that most of these responses refer to elements which are related to using planning strategies before writing. For instance, the participants referred to using strategies such as asking questions before reading and brainstorming background knowledge on the topic. Different

categories referred to the use of while-reading strategies such as identifying main and supporting ideas in the text. Moreover, content analysis of these responses indicated the use of evaluation strategies; namely, summarising and reflecting on reading. Furthermore, different techniques have been sorted out from participants' responses:

Table 5: metacognitive/cognitive strategies and techniques used

Theme/metacognitive strategies	Category/cognitive strategies	Techniques
Planning strategies	Asking questions	*Writing down questions*
	Brainstorming background knowledge	*Taking-notes of ideas on the topic*
Monitoring strategies	Identifying main & supporting ideas	*Taking notes of main ideas in the text*
		Drawing outlines of the main ideas
Evaluating strategies	Reflecting on reading	*Asking questions* *Drawing outlines*
	Summarising reading	*Writing summary texts*

The table demonstrates the strategies used by the participants. The responses generated indicate the use of strategies at the planning, monitoring, and evaluation level of metacognition. In relation to planning, the participants used strategies such as asking questions and brainstorming

background knowledge. To that end, they used different techniques including writing down questions and taking notes of ideas. For monitoring, the participants identified main and supporting ideas in the text. They relied on note-taking and outlining to organise the main and supporting ideas. At the level of evaluation, they used reflecting and summarising strategies which were implemented by means of asking questions, outlining, and writing summary texts.

Discussion

The study dealt with self-assessment of reading in an EFL university context. Self-assessment has been researched because it is believed that it is central to the reading process of university students. While reading depends on metacognitive processing, it remains crucial to support it with self-regulatory tools such as self-assessment. In response to this, the study was designed in order to investigate how self-assessment affects reading comprehension skills. It can be argued that giving the students opportunities to self-assess their reading processes can enhance their reading comprehension skills. In line with the research findings, the participants had higher scores on the reading comprehension test after the use of self-assessment, and they referred to the use of different reading strategies before reading, while reading, and after reading. It seems that the use of self-assessment helped the students to be skilled readers, because they were actively involved in using metacognitive strategies before, during, and after reading.

To explain, using self-assessment standards enhanced students' meta-cognition which is key for raising their awareness of the nature of the reading process. Thus, they were able to engage in constructive and responsive reading in which they were constantly monitoring the reading process relying on different reading strategies. In line with this, (Ditzel, 2010) maintained that applying evaluation criteria as part of reading can increase reading comprehension monitoring.

After the use of self-assessment, the students became trained in using their metacognition. As a consequence, they applied self-regulation skills which helped them to diagnose their needs and the appropriate strategies to use in order to understand the text. The students used different reading strategies such as asking questions, identifying main ideas, summarising, reflecting...etc. Accordingly, Nergis (2013) claims that successful implementation of strategies depends on the ability to apply self-regulation skills which are mainly planning, monitoring, and evaluating.

It can be argued that working with the criteria of self-assessment contributed to building students' reading self-regulatory skills. This entails the ability to apply metacognitive strategies such as planning, monitoring, and evaluating. This resulted in improving the quality of comprehension monitoring which enabled them to implement reading strategies according to their needs. Eventually, they were able to understand the text. This is due to the fact that comprehension monitoring facilitates the reader's access to meaning (Tavakoli, 2014; Yuksel & Yuksel, 2012). Applying Comprehension monitoring facilitated the use of control processes which are responsible for coordinating action between reading strategies throughout the reading process (ibid.). This means that the participants were able to decide when and which strategy to use to solve a problem during reading. In addition, they were able to control reading by selecting the appropriate strategies to use in response to breakdowns in constructing meaning.

It can be argued that self-assessment developed students' monitoring skills. In other words, they became involved in the process of metacognitive monitoring by which the reader evaluates the efficacy of the strategies used and adapts them to task requirements. To add, Estacio (2013) see that awareness of criteria of effective reading process promotes monitoring skills which have a direct impact on the quality of text comprehension. In addition, comprehension monitoring develops in response to strategy use;

and eventually this has an impact on developing reading comprehension skills (Ditzel, 2010; Tavakoli, 2014).

Furthermore, using the criteria familiarised the participants with the demands of reading and raised their awareness of the strategies they can use. This means that they developed metacognitive knowledge of the reading process, since they are familiar with the different strategies to apply and for what purposes. Furthermore, they have developed a reading task schema. This refers to knowledge of the reading process and its main components.

To add, the findings suggest that self-assessment as a regulatory tool was a factor which led to the growth of participants' metacognitive experiences. Working with the criteria of reading strategies checklist and applying them to monitor reading involved the students in metacognitive experiences. Through metacognitive experiences, the students may have used problem-solving and reflection processes which are responsible for the internalisation of metacognitive knowledge and self-regulatory skills. This can be supported by theories on metacognition which explain how metacognitive experiences shape the nature of metacognitive knowledge acquired and the quality of strategy processing (Tarricone, 2011).

The study's findings support the purpose of the study and the thesis statement. The findings can also be justified relying on theoretical background on self-assessment and metacognition. To that end, we can refer to the role of self-assessment in enhancing reading comprehension skills due to its nature as a metacognitive process inclusive of self-monitoring skills. We can also refer to the nature of self-assessment as a self-regulatory skill which can enhance the use of metacognitive strategies (Iwai, 2011), and the quality of reading comprehension skills (Nergis, 2013).

Self-assessment may have increased students' metacognition, because it helped learners to internalise criteria of good work. Using this

knowledge of criteria enabled them to solve breakdowns during reading. Consequently, they developed metacognition which improved their reading strategy use. They were able to select strategies and were able to consciously plan, monitor and evaluate reading. In line with previous studies, it can be argued that self-assessment helps learners to develop reading comprehension skills. This study expanded on existing knowledge by investigating the strategies used by students.

The findings of the study can also be supported by previous research findings on self-assessment and reading comprehension skills. For instance, Baniabdelrahman (2010) and Shahrakipour (2014) found that using self-assessment scales enhance reading comprehension skills. These studies were significant in highlighting the role of self-assessment in developing reading comprehension skills. However, the study extended existing research, because it explored the role of self-assessment in improving strategy use. It highlighted the strategies and the techniques that the participants used to improve their reading comprehension. This provides insights into the contribution of self-assessment on the reading process, and focuses on the importance of reading strategies for text comprehension. In addition, the study pinpointed to the techniques that students can develop after using self-assessment of reading strategies.

Conclusion & Suggestions

Based on the findings of this research, it can be concluded that the students developed reading comprehension skills and the use of reading strategies. Based on theory, the use of self-assessment to assess reading can enhance students' metacognition. Accordingly, it enables students to plan, monitor, and evaluate the reading process. The use of self-assessment can familiarise the students with the criteria and strategies of reading and can give them opportunities to reflect on their performance. In addition, self-assessment checklists are practical to use and provide formative feedback to the students. Therefore, the study suggests integrating self-assessment of

reading strategies checklists as part of reading courses to enhance students' metacognitive skills. The study also recommends formulating self-assessment criteria which match course objectives.

References

Baniabdelrahman, A.A. (2010). The effect of the use of self-assessment on EFL students' performance in reading comprehension in English. *TESL-EJ*, 14 (2), 1-22

Creswell, J.A. (2014). *Research design: qualitative, quantitative, and mixed-method research* (4th ed.). London: Sage.

Dhillon, B. P. S., Herman, H., & Syafryadin, S. (2020). The effect of skimming method to improve students' ability in reading comprehension on narrative text. *Linguists: Journal Of Linguistics and Language Teaching*, 6(1), 77-88.

Ditzel, S. N. (2010). Metacognitive reading strategies can improve self-regulation. *Journal of College Reading and Learning*, 40(2), 45-63.

Estacio, M. J. M. (2013).Bilingual readers' metacognitive strategies as predictors of reading comprehension. *Philippine ESL Journal*, 10, 179-199.

Esteve, O., Trenchs, J.T., Pujola, J., Arumi, M. & Birello, M. (2012). The ELP as a mediating tool for the development of self-regulation in foreign language learning university contexts: An ethnographic study. In Kuhn, B. & Perez Cavana, M. (Eds.), *Perspectives from the European Language Portfolio: Learner autonomy and self-assessment* (pp. 73-99). Oxon: Routledge.

Iwai, Y. (2011). The effects of metacognitive reading strategies: Pedagogical implications for EFL/ESL teachers. *The Reading Matrix*, 11(2), 150-157.

Martina, F., Syafryadin, S., & Utama, J. A. (2020). The Practice of extensive reading among EFL learners in tertiary level. *Yavana Bhasha: Journal of English Language Education*, *3*(2), 56-72.

Martina, F., Syafryadin, S., Rakhmanina, L., & Juwita, S. (2020). The effect of time constraint on student reading comprehension test performance in narrative text. *Journal of Languages and Language Teaching*, *8*(3), 323-329.

Nergis, A. (2013). Exploring the factors that affect reading comprehension of EAP learners. *Journal of English for Academic Purposes*, 12, 1-9.

Neuman, W. L. (2014). *Social research methods: qualitative & quantitative approaches* (7th ed.). Essex: Pearson

Perez Cavana, M. L. (2012). Fostering strategic, self-regulated learning: the case for a 'soft' ELP. In B. Kuhn & M. Perez Cavana (Eds.), *Perspectives from the European Language Portfolio: Learner autonomy and self-assessment* (pp. 143-160). Oxon: Routledge

Shahrakipour, H. (2014). On the impact of self-assessment on EFL learners' receptive skills performance. *AJTLHE*, 6 (1), 1-13

Tarricone, P. (2011). *The taxonomy of metacognition*. Hove/UK: Psychology Press

Tavakoli, H. (2014). The effectiveness of metacognitive strategy awareness in reading comprehension: The case of Iranian university EFL students. *The Reading Matrix*, 14(2), 314-336.

Wibowo, Y., Syafrizal, S., & Syafryadin, S. (2020). An Analysis of English teachers' strategies in teaching reading comprehension. *JALL (Journal of Applied Linguistics and Literacy)*, *4*(1), 20-27.

Yuksel, I., &Yuksel, I. (2012). Metacognitive awareness of academic reading strategies. *Procedia – Social and Behavioral Sciences*, 31, 894-898.