

## The Relationship Between EFL Underachievers' Reading Comprehension Skills and their Writing Performance

By

Hala Mesbah Abd El Hamid Abd El Aziz

Dr. Mohammad Farouk Abd Elsami  
Tawab

Dr. Mona Ahmed Abd El

Professor of Curriculum & EFL  
Instruction and Dean of Faculty  
of Education – Fayoum University

Lecturer of Curriculum & EFL  
Instruction, Faculty of Education-  
Fayoum University

ملخص البحث

### العلاقة بين مهارات الفهم القرائي والأداء الكتابي لدى منخفضي التحصيل الدراسي من متعلمي اللغة الإنجليزية كلغة اجنبية

يمثل البحث الحالي دراسة ارتباطية هدفت الى استكشاف العلاقة بين مهارات الفهم القرائي والأداء الكتابي لدى منخفضي التحصيل الدراسي من متعلمي اللغة الإنجليزية كلغة اجنبية في المرحلة الاعدادية. وتكونت عينة الدراسة من 80 طالبة بالصف الأول الإعدادي بمدرسة التوفيق الإعدادية للبنات بمحافظة الفيوم. وقد تمثلت أدوات البحث في اختبار مهارات الفهم القرائي وتم قياس الأداء الكتابي من خلال مهامه كتابية (الاختباران من اعداد الباحثة). وقد تم تطبيق الأدوات على عينة الدراسة ثم حساب قيمة معامل بيرسون في الارتباط بين درجات الطلاب في مهارات الفهم القرائي والأداء الكتابي في اللغة الانجليزية. اسفرت نتائج الدراسة عن وجود علاقة ارتباطية موجبة ذات دلالة احصائية بين مستوى مهارات الفهم القرائي والأداء الكتابي (عند مستوى دلالة 0.01). حيث انه كلما ارتفع مستوى الطالبات في مهارات الفهم القرائي كلما ارتفعت درجاتهم في الأداء الكتابي والعكس صحيح. تقدم

الدراسة بعض التوصيات والمقترحات. وهذا البحث مشتق من رسالة الدكتوراه الخاصة بالباحثة.

الكلمات المفتاحية: الاداء الكتابي ، الفهم القرائي ، مهارات الفهم القرائي ، منخفضى التحصيل

## Abstract

The present research paper is a correlation study that aimed at exploring the relationship between reading comprehension skills level and composition writing performance for EFL underachievers. The study sample was 80 low intermediate-level students at El Tawfik Preparatory school for girls in El Fayoum Governorate in their first semester of the academic year (2018/2019). The participants' age ranged between twelve and thirteen years old. The low achieving students were selected based on their scores in the reading comprehension and achievement pre-tests. The lowest 25% of them were considered underachievers. The measurement instruments were (1) a reading comprehension skills test (the post-test version, Form B) and (2) a composition writing task. The two instruments were prepared by the researcher. Pearson correlation coefficient between the two study variables was computed. Results indicated a statistically significant positive correlation between reading comprehension skills level and composition writing performance in EFL at (0.01) level. That is, the higher students' scores in reading comprehension skills, the higher their scores in EFL composition writing and vice versa. Practical implications of these findings are discussed.

**Key words:** Correlation study, reading comprehension, reading comprehension skills, underachievers, composition writing

## Introduction

There is a weakness among intermediate-level EFL learners specially underachievers in their composition writing and this is evident from empirical research results investigating the writing performance and/or reflective thinking of Egyptian pupils at preparatory stage (e.g., Abd Al-Fattah, 2012; Abdul Azeez, 2012; Abou Zeid, 2012; Ahmed, 2008; Al-Sagheer, 2013; Bahig, 2011; Ebedy, 2013; Elbasel, 2012; El-Hamly, 2013; El-Kady, 2011; El-Serafy, 2008; Kamel, 2010; koraney, 2009; Madkoor, 2010; Shafee, 2011; Youssif, 2010 as cited by Seifeddin, Ahmed, & Ebrahim, 2015). The argument was that writing is a process of constructing meaning; that is participating in writing as a meaning-making process necessitates writers to develop ideas linguistically and express ideas coherently (Grabe & Kaplan, 1996; Halliday & Hasan, 1976; Hayes, 1996; Murray, 1980 as cited by Kim, Scott & Crossley, 2018). Regarding linguistic knowledge, it includes punctuation and formatting, vocabulary, orthographic, and morpho-syntactic knowledge (Schoonen, 2019). Additionally, ideas should be properly connected across a text and writers should provide transitions between ideas in order to establish both local cohesion which can be accomplished through lexical, syntactic and cohesive ties presented in the written task and global coherence which is referred to by (Carrell, 1982; Connor & Johns, 1990 as cited by Plakansa & Gebril, 2017) as the logical flow of ideas and thus the written composition becomes a well-structured coherent text. On the other hand, reading comprehension involves the construction of an integrated and coherent representation of a text's meaning (Gernsbacher, 1997 as cited by Cain 2003) which in turn requires the recognition of a text's organizational structure and identifying the connections within a text. Research evidence revealed that organization and connection which are characteristics of constructs of writing are also present in conceptualizations of reading and listening and are regarded as crucial elements to text comprehension (e.g. Grabe & Kaplan, 1996 as cited by Plakansa & Gebril, 2017). Therefore, reading and writing share constituents of a common knowledge base as well as overlapping cognitive processing (Fitzgerald & Shanahan, 2000 as cited by

Koons, 2008). Thus, Cain (2003) predicted a relation between a reader's ability to comprehend text and their ability to produce a structurally coherent narrative. Likewise, is a reader's ability to produce a structured coherent descriptive and/or expository text. Moreover, a reasonable expectation was that the teaching of one can affect the student's operation in the other due to parallelism in the reading and writing processes and the nature of the transaction between author and reader (Rosenblatt, 2004 as cited by Palmer, 2010). In accordance with this was a study investigated the effects of a discourse approach to reading on the academic writing skills of secondary ESL students (N=60). The instruments used were the comprehensive English language test and pre- and post-writing tests. The study results indicated that discourse approach to reading facilitates transfer of discourse skills from reading to writing and that elements acquired in one modality can be used in the other (Barroga, 2016).

Although reading comprehension and written production were tackled largely in research, they were treated as independent skills and very little investigation has examined the possible relationship between these two skills particularly from a discourse and cognitive perspective (Parodi, 2007). Moreover, most studies that investigated the relation between reading and writing dealt with content area subjects like science & geography. In addition, it was claimed that low-achieving adolescents have been underrepresented in research (Braze et al., 2007 as cited by van Steensel, Oostdam, van Gelderen & van Schooten, 2016). Besides, a meta analyses revealed that reading instructional studies rarely assessed students' growth in writing and that most of the intervention studies that assessed the effectiveness of reading comprehension did not examine whether there was a corresponding improvement in writing capabilities (Graham & Harris, 2017). Different from previous studies pertaining to the relationship between reading comprehension and writing (as a source-based) and/or in integrated tasks (e.g., summarization), the present study investigated the relationship between reading comprehension and writing in EFL for underachieving learners of middle school.

## Statement of the problem

The problem of the present study lies in exploring the relationship between intermediate-level EFL underachievers' reading comprehension skills level and composition writing performance. It is hypothesized that EFL underachievers' low level of writing performance (as measured using a composition writing task) is basically related to their level of reading comprehension skills.

Therefore, the present study attempted to answer the following question:

1. Is there a relationship between intermediate-level EFL underachievers' reading comprehension skills level and their writing performance?

## Significance of the study

1. Raising students' awareness of the importance of developing their reading comprehension skills to enhance their writing quality incidentally.
2. Providing students and teachers with a test measuring reading comprehension skills and a writing performance task to assess students' composition writing ability.
3. Providing valid and appropriate rubric to assess this type of task (i.e., the writing performance task).

## Hypothesis of the study

“There is a statistically significant positive correlation between intermediate-level EFL underachievers' reading comprehension skills level and their writing performance”.

## Delimitations of the study

1. A sample of Low intermediate-level EFL underachievers in El Tawfic governmental school for girls in El Fayoum Governorate.
  2. Low intermediate-level EFLs reading comprehension skills.
  3. Low intermediate-level EFLs paragraph writing task.
- The rationale for selecting the study sample is that mastering writing is difficult for foreign language learners especially

underachieving students since it is a cognitively complicated demanding task which involves higher order cognitive skills in addition to better communication skills. The pilot study revealed that the study sample demonstrated weaknesses in many aspects of their writing compositions and their reading comprehension skills especially higher-level ones as their scores on the composition writing task and the reading comprehension test were low when compared to the scores of other students in the same age. Moreover, reading is a means for acquainting students with the knowledge and strategies required for fluent and accurate writing and provides a meaningful context for students to learn the language as it exposes and familiarizes them with different genres and rhetorical structures, appropriate expressions as well as providing them with appropriate syntactic and semantic knowledge. As students read for comprehension, they incidentally acquire, assimilate and strengthen their knowledge of language as used in communication as well as grasping the writing mechanics in addition to a raised awareness of how to use cohesive ties and how to connect ideas coherently when composing their writing. Writing, on the other hand, consolidates what students have learnt through reading and provides a chance for students to work with language in context, and thus enables students to strengthen their knowledge of the language. Therefore, it is hypothesized that enhanced reading comprehension skills is associated with developed writing skills and that lower levels of reading comprehension predict lower levels of writing performance and vice versa.

## **Definition of terms**

### **Reading comprehension skills**

**Alptekin** (2006:494) claimed that “reading is viewed as an interaction of the reader’s text-based and knowledge-based processes. In processing texts, readers combine literal comprehension, based on lower-level cognitive processes of reading such as lexical access and

syntactic parsing, with inferential comprehension, based on higher-level cognitive processes such as the textbase of comprehension and the situation model of interpretation”. **Alyousef** (2006:64) defined reading comprehension skills as “interactive processes where the reader interacts dynamically with the text to elicit meaning, which leads to automaticity or reading fluency and constructing the message of the author using the reader’s prior knowledge and linguistic, systematic and schematic knowledge”. The researcher adopted **Alyousef**’s definition for the purpose of this research.

### **Composition writing performance**

**Seifeddin, Ahmed, & Ebrahim** (2015) defined writing performance as “the production of written English paragraphs with acceptable ideas (supported details, relevant, organized, and coherent) and correctness (grammar, spelling, word choice, and punctuation)”.

### **Literature review**

The purpose of this research paper is to investigate the correlation between reading comprehension skills level and composition writing performance of low intermediate-level EFL underachievers participating in a strategic reading instructional program. Writing skill depends on a complex interweaving cognitive, linguistic and affective processes since the writer needs to rapidly retrieve knowledge from long term memory, manage working memory and attention, express ideas cohesively in verbal form and think clearly about topics (Kellogg & Whiteford, 2009 as cited by Perin, Lauterbach, Raufman & Kalamkarian, 2016) and to be a competent writer, learners need to form coherent sentences with correct spelling, capitalization, adequate semantic and syntactic structure to convey their intended meaning to the reader. On the other hand, reading comprehension necessitates the reader to retain and integrate information in short term memory and deploy higher-level text-processing skills such as drawing inferences to fill in gaps in understanding, making connections within sentences and relating information from different parts of the text to maintain both local cohesion and global coherence which in turn affects the reader’s

representation competency of the text's meaning. Furthermore, research evidence demonstrated a high correlation between linguistic features in reading and writing in several areas, including phonemic, orthographic, morphological, lexical, syntactic, and discourse features (Berninger, 2000; Shanahan, 1984; Shanahan & Lomax, 1986 as cited by Shanahan, 2006). Thus, the two modalities share a common underlying cognitive process for constructing and delivering meaning; the task of building coherence (i.e., in writing) might be parallel to some of the processes that the learner needs to deploy during reading comprehension; in addition, the production of cohesive devices during storytelling or story retelling, such as connectives and pronouns, might be related to the use of connectives to understand a reading text (Cain & Nash, 2011; Cox & Sulzby, 1984; Kendeou et al., 2009; Paris & Paris, 2003 as cited by Silva & Cain, 2019), for example, causal connectives and referential ties which signals as devices of cohesion relate ideas and events in a text and thus enables readers to form a coherent representation of their understanding and help writers to build a unified coherent text. Furthermore, a study result showed that text organizational structure is a crucial common element in both the comprehension and production of expository text for adolescent students (Taylor & Beach, 1984 as cited by Beare, 1993). Regarding reading comprehension strategies, they were found to play an essential role in writing performance since it was assumed that a reader's use of comprehension strategies should be taken into account when composing texts and that as reading involves metacognitive processes that assist in text comprehension; writing, on the other hand, was considered as applied metacognition (Hacker, Keener, & Kircher, 2009 as cited by Zsigmond, 2015).

However, there are theories that rooted for a relationship between reading and writing as a result of three constituents; (1) the shared knowledge and cognitive processes which activate linguistic levels and knowledge representations, (2) a rhetorical function as both readers and writers gain insights about their roles as senders/receivers in communication, and (3) the procedural integration of reading and writing in accomplishing external goals (Fitzgerald and Shanahan, 2002 as cited by Chodkiewicz, 2014). It was further claimed that

according to the shared knowledge view, readers draw on background knowledge to understand the new information in the reading text, and writers draw on this same source as they compose their text. Concerning the procedural knowledge, which includes knowledge about how to set goals, question, predict, summarize, visualize, analyze and how to access information purposefully, both readers and writers apply it in order to understand the reading material or convey their intended meaning through writing, and thus the claim was that instruction which increases writers' knowledge in one or more of these domains should have a reciprocal and positive effect on reading and vice versa (Shanahan, 2006 as cited by Graham & Harris, 2017). As illustrated, reading predicted lexical knowledge and cipher knowledge (spelling-sound knowledge) which in turn predicted spelling as well as word recognition (Ahmed, 2014). This led some researchers to conclude that reading and writing processes were viewed in theoretical literature as interconnected, recursive processes of coding and decoding meanings in/from text messages (Bereiter & Scardamalia, 1987 as cited by Zsigmond, 2015). This was supported with empirical research results which displayed that reading ability predicted the proportion of main ideas from source text in the summaries (Perin, Lauterbach, Raufman and Kalamkarian, 2016). Furthermore, a large body of research provided evidence which supported the contention that reading instruction on text structure facilitated recall, locating main ideas, and writing effectively as readers and writers used text structures at different moments, depending on the task, and these structures were important for organizing ideas for text comprehension and production (Ng & Graham, 2017). More studies were conducted to investigate the effect of intensive reading tasks as incorporated into a paragraph-writing classroom on EFLs paragraph writing. Participants were 54 university students. Study instruments were: (1) a pre-test and post-test to assess grammatical accuracy, grammatical complexity, and coherence and cohesion; (2) a questionnaire and (3) an interview. Results displayed a positive impact of reading on paragraph-writing development, particularly in the area of grammatical complexity. In addition, these EFL learners reported that they found this reading into writing

approach helpful in improving their paragraph writing ability (Chuenchaichon, 2011). Another study investigated the effectiveness of reading-to-write technique while correcting errors on the development of students' writing composition. Participants were 60 EFL secondary school students. The study instrument was a pre-post-English test to assess students' performance on grammar, punctuation, coherence, spelling and writing free compositions. The control group received only correction of errors. Results revealed that the experimental group outperformed the control group in writing composition. The results also indicated that there was no effect of correcting errors only on students' writing performance (Hadree, 2006). On the other hand, empirical research evidence revealed that writing about text read improved comprehension (Graham and Hebert, 2010, 2011 as cited by Hebert, Gillespie & Graham, 2013)

However, high achieving learners were different from underachievers in their level of cognitive-processing in both reading comprehension and writing performance and which was substantiated by their poor outcomes. This evident from empirical research which proved that better readers tend to produce more syntactically mature writing than poorer readers (Stotsky, 1983 as cited by Sarangarm, 1992). One plausible explanation might be that poor readers did not read much and, thus, got less experience of the organizational structures and ideas of texts, which also affected their writing development (Juel 1988 as cited by Mäki, Voeten, Vauras & Poskiparta, 2001). Moreover, children with reading comprehension difficulties demonstrated deficits in both aspects of the organization of their narratives, relative to same age skilled comprehenders and younger children of equivalent comprehension ability (Cain, 2003). The discrepancy between high achieving and low achieving learners was also evident in adolescence since more skilled writers were able to use more varied lexicon and more complex grammar in their texts (Crossley, Weston, McLain, Sullivan, & McNamara, 2011; Graham, 2006; Houck & Billingsley, 1989; Myhill, 2008 as cited in Trapman, van Gelderen, van Schooten & Jan Hulstijn, 2018). Furthermore, learners with higher levels of reading and writing achievement demonstrated awareness of higher order cognitive processes as

evident from their use of cohesive ties as indicated by a study's results in which 123 French eight-year-olds participated and which revealed that pronoun knowledge and referent recognition were good indicators of higher order comprehension processes because referent identification required access to a well-specified mental model of the previous part of the text (Elbro, Oakhill, Megherbi & Seigneuric, 2016). In the same vein, it was argued that when students were asked to write their opinions or thoughts regarding a topic of discussion, connective words played a pivotal role in developing their reading and writing performance (Crosson, 2010 as cited by Duggleby, 20131).

There are factors that affect both students' reading comprehension and writing performance as evident from research such as receptive and productive vocabulary knowledge; syntactic knowledge and morphological knowledge including prefix and suffix identification (Chiang, Shanahan, Gentile, Rikoon & Rimdzius, 2017). In a linguistic analysis of adolescents' writing, it was found that weaker writers tended to use less variety in their word choice and syntax (Myhill, 2008 as cited by Northey, McCutchen & Sanders, 2016). Concerning syntax, students with limited syntactic abilities demonstrated poor reading comprehension at the sentence-level and wrote using fewer morphemes and produced less complex syntactic structures (Nelson, Bahr, & Van Meter, 2004 as cited by Mason, Davison, Hammer, Miller & Glutting 2013). For semantics, it was found that students with lesser repertoire of vocabulary did not know the surrounding words and thus were not able to use them as contextual cues in order to comprehend unfamiliar words, on the other hand, students with diverse writing vocabulary could effectively and efficiently communicate the meaning of their ideas (Baker, Gersten & Graham, 2003; Shefelbine, 1990 as cited by Mason, Davison, Hammer, Miller & Glutting, 2013). Regarding morphology, results of a correlational study conducted on fifth- and eighth-grade American students (N = 233) displayed that morphological skills played an essential role in writing after controlling for grade level, comprehension, and writing fluency (Northey, McCutchen & Sanders, 2016). Furthermore, interventions including morphological

instruction have led to improvements in students' comprehension (Badawi, 2019).

## Correlational studies

---

Evidence for a relationship between writing and reading comprehension in students has been supported by empirical findings.

Alsayed, M. (1991) study aimed at investigating the inter-relationship between the performance of intermediate level EFL students (N=72) in a reading comprehension test and a writing test. Results revealed a significant high correlation (above 0.7) between the two test scores. This high correlation suggests that these two skills are systematically related and that knowledge of one is a valid predictor of the other.

Stotsky (1983) as cited by Parodi (2007) presented a variety of correlation studies of comprehension and production which revealed highly significant correlations between comprehension achievements and writing ability. Furthermore, Shanahan (1984) and then Shanahan and Lomax (1986) detected positive correlations among various factors which associated comprehension and production.

Schoonen (2019) investigated the relationship between reading and writing ability from the perspective of underlying cognitive processing and language subskills. Results indicated that reading and writing proficiency are found to be correlated at different stages of students' development.

Koons's (2008) study examined the relationship between grade-level reading comprehension and writing quality at grades 4, 6, 8, 10 and 12. Participants were 521 students. Two essay scores each in narrative, informative, and persuasive writing were obtained for each student. Results of correlation and structural equation modeling analyses indicated a developmental trend in the relationship between reading comprehension and writing quality with the largest correlations at grades 8, 10, and 12. The relationship between reading

comprehension and writing quality was not affected in a systematic way by the discourse mode of the writing prompt.

Foong's (1988) study results from correlation analysis indicated a strong positive relationship between L2 writing ability and L2 reading ability.

Kim, Petscher, Wanzek & Al Otaiba (2018) study investigated developmental trajectories of and the relation between reading and writing (word reading, reading comprehension, spelling, and written composition), using longitudinal data from students in Grades 3–6 in USA. Results revealed that word reading and spelling were consistently strongly related ( $.73 \leq r_s \leq .80$ ) whereas reading comprehension and written composition were weakly related ( $.21 \leq r_s \leq .37$ ).

El-Koumy (1997) conducted a study to investigate the relationship between reading and writing skills and their development in both native English-speakers (NES) and learners of English as a foreign language (EFL). Subjects were 150 NES English majors in American universities, and 150 EFL students enrolled in schools of education at four Egyptian universities. Measurements were reading comprehension and writing tests. Results indicated a statistically significant positive correlation ( $r= 0.61, p< 0.05$ ) between NES students' reading and writing scores, but no statistically significant correlation for EFL students ( $r= 0.07, p=n.s.$ ).

Abed (2015) conducted a study aimed at investigating the effect of using four higher-order cognitive processes; inference, analysis, prediction, and reflection on developing English students' reading and writing as integrated skills and modify their beliefs about the English language at Birzeit University. The design was quasi experimental with one experimental group ( $N = 22$ ) and pre and post testing. The results revealed that using higher order cognitive processes had a positive effect on developing students' reading and writing skills.

## Commentary

There was a controversy upon the relationship between reading and writing as they were viewed in some of the research literature as separate skills, but several research studies displayed that there was a positive significant relationship as there were underlying common cognitive processes that made these two constructs as codependent and integrated hence reading comprehension deficits predicted written language deficits and vice versa; good reading comprehension level predicted growth in writing ability. Other researchers found a weak correlation between reading and writing which indicated that some underlying skills are different for each modality as apparent from the claim that the syntactic details the reader needs in order to extract the important elements of the message were fewer and may be different from those which were essential when producing one's own messages in speech or writing (Ángel & Sánchez, 2000). In conjunction with previous studies, the present findings suggest that instructional training on reading comprehension strategies would benefit not only students' reading ability but also would enhance their writing performance (e.g., Abed, 2015).

## Method

### Participants

Participants were low achieving low intermediate-level students at El Tawfik Preparatory school for girls in El Fayoum Governorate in their first term of the academic year (2018/2019) who attended the strategic reading instructional program (N=40) and their peers in the control group (N=40). These participants were selected according to the following procedures:

1. Students who can read accurately at appropriate level for their age but have poor reading comprehension.
2. The lowest 25% of students based on their scores at the pretests (of reading comprehension & achievement)
3. Students who demonstrated weakness in paragraph writing.

### Instruments

Two research instruments were used in this research paper:

## The paragraph writing task

Students were asked to write a paragraph of six sentences about one of two given topics related to their Set Books (New Hello! English for preparatory schools: Year-one) of the first term (2018). This writing performance task was used to measure students' ability to write a descriptive paragraph; the writing style appropriate for intermediate level learners. The topics chosen for this task were suitable for descriptive writing including: Your favourite dish and shopping. In writing on one of these topics, the students had to demonstrate their ability to write a main idea and support it with relevant details.

## Scoring procedures

A rubric for paragraph writing was developed by the researcher to assess students' performance. It included five features (ideas & relevancy, cohesion, grammar, vocabulary & mechanics; spelling & punctuation). For each feature, 3 levels of performance were described on a 3-point rating scale ranged from 1 to 3. So, the total mark of rubric was 15.

## Validity

The writing task and the rubric was submitted to a jury to judge them for appropriateness of topics for the age of the students and their stage of development, the suitability of each level of performance to each writing skill, clarity of content of each level of performance, and the ability of the rubric to differentiate between students in levels of performance.

## Reliability

Two raters scored the written paragraphs of the pilot testing using the 3-point scale. Interrater reliability was 0.83 using Pearson product-moment correlation.

## The reading comprehension skills test

The post version (Form B) is used to measure five levels of comprehension (Literal, inferential, critical, appreciative & creative). The test comprised two reading passages followed by open ended and multiple choice questions on guessing word meaning in context, main idea identification, recognizing details, recognizing text structure (i.e., descriptive & problem/solution), making inferences, recognizing author's purpose, finding pronoun reference, recognizing relationships within and between sentences; cause and effect, purpose and contrast, finding alternative title for the passage, predicting by imaging what would happen if...., searching alternative ways to stay healthy and expressing emotions and feelings).

### **Scoring procedures**

The total mark for the test was (84). For multiple-choice question type, each item was given a score of one point for a correct response and a zero for an incorrect one. For the open-ended response question type, a scoring rubric was developed by the researcher. To assess students' performance, four features were considered. For each feature, three levels of performance were described on a three rating scale ranged from 1 to 3. So, the total mark of rubric was 12.

### **Test Validity**

The validity of the pre-post-tests was verified by a jury of EFL specialists to indicate: the aim of the test, whether each item in the test addressed a reading comprehension skill, consistency of test items to the linguistic level of participants, suitability of the test items to the objectives of the training program, clarity of instructions, consistency of test items with the aim and construct intended to be measured, and whether the test was suitable to differentiate students with reading comprehension difficulties from students who comprehend at adequate levels. According to their comments, some test items were revised, deleted or added.

### **Test Reliability**

The estimated reliability coefficient for the post-test (Form B) was (0.87).

## Findings, Discussion and Recommendations

### The correlation between reading comprehension skills and composition writing performance in EFL underachieving students:

#### Testing the Study Hypothesis:

The study hypothesis stated that:

“There is a statistically significant positive correlation between low intermediate-level EFL underachievers’ reading comprehension skills level and their writing performance”.

A Pearson product moment correlation analysis was conducted to examine the relationship between the scores of the two post-tests as measures of low intermediate-level EFL underachievers’ reading comprehension skills level and their writing ability. The table below shows Pearson correlation coefficient value.

Table (1)

The correlation coefficient between the reading comprehension skills post-test and the writing composition post-task

Reading comprehension skills post-test Sig.	**0.551 N.80	1
Writing achievement post-test Sig.	1 N.80	**0.551

\*\* Correlation is significant at 0.01 level

As shown in table (1), the correlation coefficient of the total scores between the reading comprehension skills post-test and the writing performance post-task was ( $r=0.551$ ,  $p < 0.01$ ). This coefficient value indicated that the reading comprehension skills test significantly correlated positively with the writing performance task at (0.01) level and the magnitude of the correlation was strong. Thus, as reading comprehension skills level increases, writing performance

increases and vice versa. According to Cohen (1988:77-81) as cited in Hemphill,2003, an absolute value of  $r$  of 0.1 is classified as small, an absolute value of 0.3 is classified as medium and of 0.5 is classified as large.

### Results of pre-post testing of the composition writing performance task

T- value and its significance in the pre-post testing of composition writing performance for the experimental group

Administration	N.	Mean	SD.
Pre-testing	40	2.05	2.278
Post-testing	40	10.775	2.423

T- value is significant at (0.01) level.

Comparing the pre- and post-test results of the experimental group indicated statistically significant increase in writing performance of the study sample in favor of the post testing. As the post writing task scores of the experimental group were significantly higher than those of the pre- writing task.

### Discussion

The results revealed that the estimated correlation was ( $r=0.551$ ,  $p< 0.01$ ). It can be concluded that there was a positive strong correlation between the study sample's scores on the reading comprehension skills test and the composition writing achievement task at (0.01) level of significance. The correlation of variables included the post results in regards to test scores. This showed that students with higher levels of reading comprehension skills tend to have improved writing ability. This can be illustrated through the following points:

1. The researcher can infer that when underachieving students developed their reading comprehension skills as a result of

- using comprehension fix-up strategies of predicting, self-questioning, making connections and visualizing, their writing ability enhanced, too.
2. In addition, poor reading comprehension predicts poor writing quality.
  3. The strong but less than perfect correlation coefficient between reading comprehension skills and writing performance implies that there are students who have deficits in just one of these language skills.
  4. High coefficient correlation between measures of reading comprehension skills and writing ability indicated that some students who were able to identify main ideas and recognize text structures when reading were also able to write relatively well-structured paragraphs.

There were observable differences in the writing patterns between the experimental and control groups. The former demonstrated more increased level in writing ability concerning coherence and cohesion. Additionally, the main idea was clearly stated in most writing samples. This might be due to the following:

1. The declarative knowledge for writing might be gained incidentally through reading instruction, thus students have benefited from text structure analysis and making connections using cohesive devices as students' writing samples were characterized by the use of reference and conjunctive cohesion and were to a great degree well-structured texts. Cohesion and coherence are essential for deciphering meaning from text as well as for conveying a clear precise meaning through composition writing. On the contrary, less skilled comprehenders of both the control and experimental groups produced fewer (if no) cohesive ties in their writing compositions and their writing was arbitrary.
2. The knowledge acquired during the study of one skill was transferred and activated in the other skill.

## Recommendations

Based on the study findings, the researcher recommended the following:

1. An integrated strategic reading and writing based program should be provided to EFL learners as an integral part of the English language curriculum.
2. Reading and writing should be taught as an integrated skills task at early age of schooling.
3. Instruction on comprehension fix-up strategies should be considered as part of reading instruction particularly during an earlier phase of reading development.
4. Training intermediate-level students on the shared skills and operations in processing both reading and writing to achieve high levels of competency.

## Suggestions for further research

The following research areas are suggested:

- 1) Examining the relation between reading comprehension skills level and writing composition across grades
- 2) A correlation study exploring the relationship between EFL strategic writing skills and composition writing level.
- 3) Investigating the relations between each of the subcomponents of reading comprehension and composition writing performance.
- 4) A correlation study exploring the relationship between students' use of reading comprehension fix-up strategies and reading anxiety.
- 5) A correlation study exploring the relation between underachievers' use of writing strategies and writing anxiety.
- 6) Investigating the effect of explicit fix-up strategies instruction to compensate for students' low writing ability on developing EFL underachievers' writing skills.
- 7) Investigating the effect of using writing strategies on EFL underachievers' demotivation.

- 8) A correlation study exploring whether a subskill of reading and writing (e.g., vocabulary knowledge) can explain the correlation between both variables.
- 9) A study investigating the underlying common factor that contribute to the correlations between the reading and writing tests.
- 10) A study comparing the effect of direct writing instruction verses incidental learning of writing skills through other reading instructional programs.
- 11) A study investigating whether there is a causative relationship between reading skill and writing skill.

## References

- Abed, T. B. B. (2015). Using higher-order cognitive processes to develop the students' reading and writing skills and modify their beliefs about the english language at Birzeit University, MA. Thesis, Faculty of Education, Ain Shams University.
- Ahmed, Y. (2014). Joint modeling of the component skills of reading and writing: a meta-analytic sem approach. PH. D. Dissertation, College of Arts and Sciences, Florida State University, USA.
- Alptekin, C. (2006). Cultural familiarity in inferential and literal comprehension in L2 reading. *System*, 34, (pp. 494:508). [Http:// doi: 10.1016/j.system.2006.05.003](http://doi:10.1016/j.system.2006.05.003)
- Alsayed, M. (1991). An investigation of the interrelationship between the reading and writing performance of intermediate level EFL students. Ph. D. Dissertation, Swansea University, UK. ProQuest Dissertations Publishing.
- Alyousef, H. S. (2006). Teaching reading comprehension to ESL/EFL learners. *Journal of language and learning*, 5(1), (pp.63-73).
- Ángel, M. & Sánchez, A. (2000). An approach to the integration of skills in english teaching. *Didáctica (Lengua y Literatura)*, 12, (pp. 21-41).
- Badawi, M.F.A. (2019). The effect of explicit english morphology instruction on EFL secondary school students' morphological awareness and reading comprehension. *English Language Teaching*, 12(4), (pp. 166-178). <https://doi.org/10.5539/elt.v12n4p166>
- Barroga, A. E. (2016). A discourse approach to reading: its effect on the academic writing skills of secondary esl learners. *Scientific Journal of Faculty of Education, Misurata - Libya*, 1 (5), (pp. 24-43). <http://search.mandumah.com/Record/814639>
- Beare, S. (1993). The reading-writing relationship: Three teaching approaches designed using reading and writing

- activities to develop persuasive discourse in adult ESL writing. MA. Thesis, Faculty of Education, University of Ottawa, Canada.
- Cain, K. (2003). Text comprehension and its relation to coherence and cohesion in children's fictional narratives. *British Journal of Developmental Psychology*, 21, (pp. 335–351)
- Chiang, H., Shanahan, T., Gentile, C. Rikoon, S & Rimdzius, T. (2017). An exploration of instructional practices that foster language development and comprehension: Evidence from prekindergarten through grade 3 in title I schools. Department of Education, USA.
- Chodkiewicz, H. (2014). Fostering strategy use in a reading-based course in efl academic context: students' perspectives. In D. Gabrys'-Barker and A. Wojtaszek (Eds.), *Studying second language acquisition from a qualitative perspective, second language learning and teaching*. [Http:// doi: 10.1007/978-3-319-08353-7 4](http://doi:10.1007/978-3-319-08353-7_4).
- Chuenchaichon, Y. (2011). The development of paragraph writing for EFL writers through the use of a reading into writing method. Ph. D. Dissertation, The University of Reading, UK. ProQuest Dissertations Publishing.
- Duggleby, S. J. (2013). The relationship between using connective words and reading and writing proficiency in the ninth grade. Ph. D. Dissertation, Capella University. ProQuest Dissertations Publishing.
- Elbro, C., Oakhill, J., Megherbi, H. & Seigneuric, A. (2016). Aspects of pronominal resolution as markers of reading comprehension: The role of antecedent variability. *Read Writ*. [Http:// doi: 10.1007/s11145-016-9702-4](http://doi:10.1007/s11145-016-9702-4)
- El-Koumy, A. A. (1997). Exploring the reading-writing relationship in NES and EFL students. ERIC NO. ED 413 781
- Foong, K. P. (1988). The relationship between reading and writing in english as a second language. The University of Texas, Arlington, USA.
- Gabrys'-Barker, D. & Wojtaszek, A. (Eds.), *Studying second*

- language acquisition from a qualitative perspective, second language learning and teaching. [Http:// doi: 10.1007/978-3-319-08353-7\\_4](http://doi.org/10.1007/978-3-319-08353-7_4).
- Graham, S & Harris, K.R. (2017). Reading and writing connections: How writing can build better readers (and vice versa). In C. Ng and B. Bartlett (Eds.), Improving reading and reading engagement in the 21<sup>st</sup> century. International Research and Innovation, (pp. 333-359). [Http:// doi: 10.1007/978-981-10-4331-4\\_15](http://doi.org/10.1007/978-981-10-4331-4_15).
- Hadree, F. A. M. (2006). The effect of using the technique read-to-write in correcting English writing errors on the development of the secondary students' writing composition in Jordan. MA. Thesis, Oman Arabic University, Jordan.  
[Http://search.mandumah.com/Record/635212](http://search.mandumah.com/Record/635212)
- Hebert, M., Gillespie, A & Graham, S. (2013). Comparing effects of different writing activities on reading comprehension: A meta-analysis. Read Writ, 26, (pp. 111–138). [Http:// doi: 10.1007/s11145-012-9386-3](http://doi.org/10.1007/s11145-012-9386-3)
- Hemphill, J.F. (2003). Interpreting the magnitudes of correlation coefficients. The American Psychological Association, 58 (1), (pp. 78-80). [Http:// doi:10.1037/0003-066x.58.1.78](http://doi.org/10.1037/0003-066x.58.1.78).
- Kim, M., Scott, A. & Crossley. (2018). Modeling second language writing quality: A structural equation investigation of lexical, syntactic, and cohesive features in source-based and independent writing. Assessing Writing, 37, (pp. 39–56). [Https://doi.org/10.1016/j.asw.2018.03.002](https://doi.org/10.1016/j.asw.2018.03.002).
- Kim, Y.-S. G., Petscher, Y., Wanzek, J. & Al Otaiba, S. (2018). Relations between reading and writing: A longitudinal examination from grades 3 to 6. Read Writ, 31, (pp. 1591–1618). [Https://doi.org/10.1007/s11145-018-9855-4](https://doi.org/10.1007/s11145-018-9855-4)
- Koons, H.H. (2008). The reading-writing connection: An investigation of the relationship between reading ability and writing quality across multiple grades and three

- writing discourse modes. PH. D. Dissertation, the University of North Carolina, Chapel Hill, USA. ProQuest Dissertations Publishing.
- Macarthur, C. A., Graham, S. & Fitzgerald, J. (Eds.). (2006). Handbook of writing research. NY: The Guilford press
- Mäki, H.S., Voeten, M. J.M., Vauras, M. M.S & Poskiparta, E. H. (2001). Predicting writing skill development with word recognition and preschool readiness skills. Reading and Writing: An Interdisciplinary Journal, 14, (pp. 643–672).
- Mason, L H., Davison, M. D., Hammer, C. S., Miller, C A. & Glutting, J. J. (2013). Knowledge, writing, and language outcomes for a reading comprehension and writing intervention. Read Writ, 26, (pp. 1133–1158). [Http://doi.org/10.1007/s11145-012-9409-0](http://doi.org/10.1007/s11145-012-9409-0)
- C. Ng and B. Bartlett (Eds.). (2017). Improving reading and reading engagement in the 21<sup>st</sup> century. International Research and Innovation. [Http://doi: 10.1007/978-981-10-4331-4\\_15.](http://doi:10.1007/978-981-10-4331-4_15)
- Ng, C. & Graham, S. (2017). Engaging readers in the twenty-first century: what we know and need to know more. In C. Ng and B. Bartlett (Eds.), Improving: reading and reading engagement in the 21<sup>st</sup> century. International Research and Innovation (pp. 17-46). [Http://doi.10.1007/978-981-10-4331-4\\_15.](http://doi.10.1007/978-981-10-4331-4_15)
- Northey, M., McCutchen, D. Sanders, E A. (2016). Contributions of morphological skill to children's essay writing. Read Writ, 29, (pp. 47–68). [Http://doi: 10.1007/s11145-015-9579-7](http://doi:10.1007/s11145-015-9579-7)
- Palmer, M.L. (2010). The relationship between reading fluency, writing fluency, and reading comprehension in Suburban third-grade students. PH. D. Dissertation, University of San Diego, USA. ProQuest Dissertations Publishing.
- Parodi, G. (2007). Reading–writing connections: Discourse-oriented research. Reading and Writing, 20, (pp.225–250).

[Http://doi.10.1007/s11145-006-9029-7](http://doi.10.1007/s11145-006-9029-7)

- Perin, D., Lauterbach, M., Raufman, J. & Kalamkarian, H. S. (2016). Text-based writing of low-skilled postsecondary students: Relation to comprehension, self-efficacy and teacher judgment. *Read Write*. [Http://doi.10.1007/s11145-016-9706-0](http://doi.10.1007/s11145-016-9706-0)
- Plakansa, L. & Gebril, A. (2017). Exploring the relationship of organization and connection with scores in integrated writing assessment. *Assessing Writing*, 31, (pp. 98–112). <http://dx.doi.org/10.1016/j.asw.2016.08.005>
- Sarangarm, I. L. (1992). The relationship between writing and reading achievement: The effectiveness of the writing to read program. PH. D. Dissertation, New Mexico State University, New Mexico, USA.
- Schoonen, R. (2019). Are reading and writing building on the same skills? The relationship between reading and writing in L1 and EFL. *Reading and Writing*, 32, (pp. 511–535). [Https://doi.org/10.1007/s11145-018-9874-1](https://doi.org/10.1007/s11145-018-9874-1)
- Seifeddin, A. H., Ahmed, S. Z. & Ebrahim, E. Y. M. (2015). A program based on english digital stories to develop the writing performance and reflective thinking of preparatory school pupils. *Faculty of Education Magazine*, 8(2), Faculty of Education, Suez University, Egypt.
- Shanahan, T. (2006). Relations among oral language, reading, and writing development. In C. A. Macarthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of Writing Research*, (pp. 171-183). NY: The Guilford press
- Silva, M & Cain, K. (2019). The use of questions to scaffold narrative coherence and cohesion. *Journal of Research in Reading*, 42(1), (pp. 1–17). [Https://doi.org/10.1111/1467-9817.12129](https://doi.org/10.1111/1467-9817.12129).
- Trapman, M., van Gelderen, A., van Schooten, E., Jan Hulstijn, J. (2018). Writing proficiency level and writing development of low-achieving adolescents: The roles of linguistic knowledge, fluency, and metacognitive

- knowledge. *Read Writ*, 31, (pp. 893–926). <https://doi.org/10.1007/s11145-018-9818-9>
- van Steensel, R. Oostdam, R., van Gelderen, A. & van Schooten, E. (2016). The role of word decoding, vocabulary knowledge and meta-cognitive knowledge in monolingual and bilingual low-achieving adolescents' reading comprehension. *Journal of Research in Reading*, 39(3), (pp. 312–329). [Http://doi:10.1111/1467-9817.12042](http://doi:10.1111/1467-9817.12042)
- Zsigmond, I. (2015). Writing strategies for fostering reading comprehension. *Science Direct Procedia - Social and Behavioral Sciences*, 180, (pp. 1698 – 1703). [Http://doi: 10.1016/j.sbspro.2015.05.073.](http://doi:10.1016/j.sbspro.2015.05.073)

## Appendices

### Appendix A

#### List of Jury Members

Name of the Jury	Position
Prof. Dr. Zinab Ali El Nagar	professor of Curriculum and Instruction, Faculty of Education, Ain Shams University.
Prof. Dr. Asmaa Ghanem	professor of Curriculum and Instruction, Faculty of Education, Ain Shams University.
Prof. Dr. Gamal Mohamed Shehata	Associate Professor of Curriculum and Instruction, Faculty of Education, Minia University

## Appendix (B)

## Post - Reading Comprehension Skills Test

Name:

School:

Time:

Score:

Read the title, what do you predict the text is about?

- The weather of Aswan
- A trip to Aswan
- Wonders of the world

## A visit to Aswan

<sup>1</sup>Aswan is a wonderful place for a holiday. <sup>2</sup>In Aswan you can see and do lots of things. <sup>3</sup>When you arrive there, enjoy a sailing trip on the Nile by the felucca to the Elephantine Island. <sup>4</sup>Aswan has many attractive tourist sites to visit. <sup>5</sup>Philae temple is one of ancient Egypt's most interesting temples. <sup>6</sup>You can sail on a felucca to the Botanic Garden of Aswan. <sup>7</sup>It attracts visitors to Egypt. <sup>8</sup>Visit the High Dam. <sup>9</sup>It is built across the Nile in Aswan in order to stop flooding and to save water. You can buy a lot of souvenirs from Aswan's bazaars. It is warm in Aswan in winter.

Choose the correct answer:

- What does the underlined word 'there' in the text refer to?
  - Aswan
  - holiday
  - things
- What does the underlined word 'It' in the text refer to?
  - Felucca
  - Aswan
  - Botanic garden
- The word 'site' in sentence 4 is closest in meaning to:
  - place
  - ancient
  - time
- What is the main idea of the text?
  - Visit the High Dam
  - Philae temple is one of ancient Egypt's most interesting temples

- c. Aswan is a wonderful place for a holiday
5. What is the text structure?
- Cause and effect
  - Problem and solution
  - Descriptive
6. What is the author's main purpose in writing this text?
- To inform the readers about the High Dam in Aswan
  - To persuade the readers to visit Aswan
  - To entertain the readers with an adventure story in Aswan
7. What is another good title for this text?
- Aswan: a tourist attraction
  - Cities around the world
  - A trip to Aswan's beach
8. The words 'in order to' in sentence 9 indicate .....
- definition
  - purpose
  - contrast
9. Which statement shows a prior knowledge related to the text?
- This text reminds me of a story of a tourist lost in a big town
  - This reminds me of a documentary about living in the woods
  - This reminds me of a tourist brochure about Egypt
10. Which picture would help a reader understand information in the text
- A picture of a Philae temple
  - A picture of crops in a field
  - A picture of passengers on a train
11. Which word in the text describes Aswan?
- Ancient
  - holiday
  - wonderful
12. The word 'wonderful' in sentence 1 is closest in meaning to:
- Very good
  - very sad
  - very fast

Answer the following questions:

- How do you feel when you go on a trip?
- Where is the High Dam?

Read the title, what do you predict the text is about?

- b. Healthy and unhealthy food
- c. Losing weight
- d. Fast- food restaurants

### Food and health

<sup>1</sup>We all need healthy food, but it is also important for the food to taste good. <sup>2</sup>Do you like a lot of toppings? <sup>3</sup>The taste of spices and toppings make food delicious. <sup>4</sup>But there is a problem, foods that are high in calories and fats are fattening and unhealthy. <sup>5</sup>The problem is that people go to fast- food restaurants. <sup>6</sup>Hot dogs and burgers cooked with hot spices are the most popular. <sup>7</sup>They are tasty but bad for you. <sup>8</sup>Let's all eat healthy food that is tasty too. <sup>9</sup>Nuts and dates instead of sweets are healthy and taste delicious. <sup>10</sup>You can eat food that has protein like chicken or fish with rice, yoghurt and green salad. <sup>11</sup>You should eat fruit and vegetables in every meal. <sup>12</sup>These have a lot of vitamins.

Choose the correct answer from a, b, c, or d:

1. What does the underlined word 'These' in the text refer to?
  - a. vitamins
  - b. vegetables
  - c. fruit and vegetables
2. The word 'meal' in sentence 11 is closest in meaning to:
  - a. day
  - b. menu
  - c. food
3. What is the main idea of the text?
  - a. We all need healthy food, but it is also important for the food to taste good.
  - b. Hot dogs and burgers cooked with hot spices are the most popular.
  - c. Foods that are high in calories and fats are fattening and unhealthy.
4. What is the text structure?
  - a. Cause and effect
  - b. Problem and solution
  - c. Description
5. What is the author's main purpose in writing this text?

- a. To entertain readers with facts about food
  - b. To persuade the readers to eat healthy food
  - c. To inform the readers about kinds of fast food
6. What is another good title for this text?
- a. Healthy eating
  - b. Food safety
  - c. Shopping for food
7. The word 'but' in sentence 4 indicates .....
- a. definition
  - b. reason
  - c. contrast
8. Which statement shows a prior knowledge related to the text?
- a. This text reminds me of a science lesson about parts of the body
  - b. This text reminds me of a magazine article about healthy diets
  - c. This text reminds me of a program about exercising
9. Which picture would help a reader understand information in the text?
- a. A picture of a fat girl eating burger
  - b. A picture of a woman cleaning the kitchen
  - c. A picture of a runner drinking a glass of water
10. Which word does 'delicious' describe?
- a. Chicken or fish
  - b. nuts and dates
  - c. sweets

Answer the following questions:

One way to stay healthy is to eat healthy food

1. What other ways you can think of to stay healthy?
2. Predict what would happen to people if there weren't any crops?
3. Why is eating healthy food important?

## Appendix C

### The English writing performance test

#### Test Instructions

Dear students, please read the following instructions before you start answering the test:

1. Answer each question in the provided space
2. Write at least six sentences for each question
3. Duration of the test is (25) minutes
4. Total mark of the test is (15) marks

Write a paragraph of six sentences about one of the following topics:

1. Your favourite dish

.....

.....

.....

.....

.....

.....

.....  
 .....  
 .....  
 .....

2. shopping

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....

Appendix (D) Rubric for paragraph writing

Category	Scoring Criteria		
	Good 3	Average 2	Poor 1
Ideas & Relevancy	<p>The student writes a simple topic sentence that conveys the main idea</p> <p>The student writes 5 relevant</p>	<p>The student partially identifies a main idea in a simple sentence.</p> <p>The student writes repetitive sentences to support the main idea</p>	<p>The student writes irrelevant sentences considering the topic or writes incomplete sentences or fragments in an attempt to state the main idea and details</p>

	supporting details		
Cohesion	The student uses cohesive devices appropriately	The student uses some cohesive devices inaccurately	The student doesn't use any cohesive devices
Grammar	The student writes syntactically correct sentences	The student makes some errors in grammar but they don't impede comprehension	The student makes frequent grammatical errors that impede comprehension
Vocabulary	The student uses appropriate vocabulary	The student uses some words inappropriately but they don't interfere with the overall meaning of the paragraph	The student frequently uses words inappropriately
Mechanics (Spelling & punctuation )	The student uses punctuation marks and spelling rules correctly	The student makes some spelling and punctuation errors that don't impede comprehension	The student makes frequent spelling and punctuation errors that impede comprehension

A 0- Point: Nothing is written in the space provided

#### Appendix (E) Rubric for open-ended response

Category	Scoring Criteria		
	Good 3	Average 2	Poor 1
Ideas & Relevancy	The student's response is related to the	The student's response contains some inappropriate information	The student's answer is completely unrelated to the task or the sentences are

	task The student's answer relates the topic to prior knowledge	The student's answer partially relates the topic to prior knowledge	decipherable The student's answer doesn't relate the topic to prior knowledge
Grammar	The student's answer is a complete grammatically correct sentence	The student's sentence has both a subject and verb with 1 or 2 errors that don't interfere with meaning	The student's sentence is a fragment or completely incorrect
Vocabulary	The student's word choice is appropriate	The student uses some words inappropriately but they don't impede comprehension	The student uses inappropriate words
Mechanics (Spelling & punctuation )	The student uses punctuation marks and spelling rules correctly	The student makes some spelling and punctuation errors that don't impede comprehension	The student makes spelling and punctuation errors that impede comprehension

A 0- Point: Nothing is written in the space provided or the student writes the question itself instead of the answer