# An Investigation of the Relationship between Writing Achievement and Writing Strategy Use by Secondary School Students

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**Abstract**

**Basically, this study aims to identify the extent to which Iraqi secondary school students use writing strategies and how proficiency level and students gender could affect writing strategy use. The study also examines the relationship between writing achievement and writing strategy use among Iraqi secondary school students. For this purpose, 140 Iraqi secondary school students were selected randomly from six different schools. Petric and Czarl's questionnaire (2003) was adopted in the study as an instrument to collect the needed data. A software of SPSS used to analyze the collected data. The findings revealed that secondary school students appeared as low users of writing strategies; low proficient students do not show a statistically significant difference compared to high proficient students, female students use more strategies compared to male students do. The study also found a positive correlation between writing strategy use and writing achievement.**

**Keyword: writing strategies; writing achievement; gender; proficiency level**

# دراسة العلاقة بين تحصيل الطلبة في الكتابة واستعمال استراتيجيات الكتابة لدى طلبة المدارس الثانوية

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**الملخص**

تهدف الدراسة الحالية تحديد مدى استعمال طلبة المدارس الثانوية العراقية لاستراتيجيات الكتابة وكيف يمكن لمستوى الكفاءة وجنس الطلبة التأثير على استعمال استراتيجية الكتابة. تتناول الدراسة أيضًا العلاقة بين تحصيل الطلبة واستعمال استراتيجيات الكتابة بين طلبة المدارس الثانوية العراقية. لتحقيق هدف الدراسة، تم اختيار ١٤٠ طالب و طالبة من طلبة المدارس الثانوية العراقية بشكل عشوائي من ستة مدارس مختلفة. تم اعتماد استبيان بيتريك وكزارل (٢٠٠٣) في الدراسة كأداة لجمع البيانات المطلوبة. استعملت الحقيبة الاحصائية لتحليل البيانات التي تم جمعها. كشفت نتائج البحث قلة استعمال استراتيجيات الكتابة لدى طلبة المدارس الثانوية ولا توجد فروق ذات دلالة احصائية بين الطلبة ذوي الكفاءة المنخفضة و الطلبة ذوي الكفاءة العالية ، كذلك اظهرت الدراسة ان الاناث تستعمل استراتيجيات الكتابة أكثر مقارنة بالطلاب الذكور. ووجدت الدراسة أيضًا وجود علاقة إيجابية بين استخدام استراتيجية الكتابة وتحصيل الطلبة.

**الكلمات المفتاحية: استراتيجيات الكتابة, التحصيل, جنس, مستوى الكفاءة**

## 1. Introduction

Writing is one of the challenging skills for second language (L2) learners, as it requires mastery of a variety of linguistic, cognitive, and sociocultural aspects (Barkaoui, 2008; Lerner, 1997). It also entails activation and organization of orthographic, graphomotor and several linguistic skills such as semantics, syntax, spelling, and writing conventions (Singer & Bashir, 2004). Writing for EFL or ESL students seems to be more challenging, though Ismail (2011) claims that there are no such clear characteristics of ESL or EFL students. He argues that ESL or EFL learners are different from natives in only being bilingual, which makes them unique learners who enjoy linguistic, metalinguistic, cognitive, and metacognitive skills that may differ from the skill sets of monolingual, native students of English.

Writing is such a difficult task; a sophisticated cognitive activity that requires a number of strategies (Chien, 2008). A writer, thus, needs to learn how to self-regulate and monitor such intricate cognitive processes (Chien, 2008). Many scholars and researchers (e.g. Flavell, 1979; Chien, 2008), thus, suggested the use of certain writing strategies that aid students improve their writing quality. Writing strategies refer to the mental processes that writers go through while engaged in writing (e.g. Armengol-Castells, 2001; Kongpun, 1992; Yahya, 1994). As supported by the literature, the use of strategy is a purposeful cognitive action (Flavell, 1979). It explains how writers approach their writing process, and how they can generate texts. Chien (2008) argues that writers who are conscious of the strategies are different from others in their ability to use such strategies to differentiate between appropriate strategies and inappropriate ones, and thus they can monitor their writing properly. Graham et al (2005) found that proper use of writing strategies contributed significantly to improving the quality of writing of poor writers. In the same context, Zamel (1983) found that skillful ESL writers employed certain strategies that took them more time than the unskilled ESL writers.

They scripted down their ideas first, revised at the discourse level; they also showed recursiveness in their writing process and in the editing process that is done at the end of the writing process. Writing strategies are quite related with proficiency. Surprisingly, there are inconsistent findings by different writers. Some writers revealed that high proficiency writers employ more writing strategies than low proficiency writers do (e.g. Mu & Carrington, 2007). However, Ridhuan and Abdullah (2009) found that good students as well as weak students employ common writing strategies, mainly cognitive strategies, to generate ideas for their essays.

Baker and Boonkit's study (2004) revealed that difference in the frequency of writing strategy used between high and low achievers in English is insignificant. In a similar vein, Ridhuan and Abdullah (2009) found that good students in English as well as weak students employ common writing strategies, with an eminent focus on cognitive strategies to generate ideas in their writing tasks. Thus, there is argument over whether there is a difference in strategy use between high proficiency and low proficiency students. Furthermore, to date little is known about studies that investigated writing strategy use among Iraqi secondary school students. In addition, little is known about studies that investigated the gender effect on the use of writing strategies. Thus, this study investigates the writing strategies use in relation with writing achievement among Iraqi secondary school students.

### 1.1 Research objectives

1. To identify overall usage of writing strategy by Iraqi secondary school students.
2. To identify the difference between high and low proficient students in term of using writing strategies.
3. To identify the difference between males and females in applying writing strategies.
4. To examine the relationship between writing achievement and writing strategy use by Iraqi secondary school students.

### 1.2 Research questions

1. What is the overall usage of writing strategy by Iraqi secondary school students?
2. Do students with low-proficiency and high-proficiency differ in using writing strategies?
3. Is there any difference between male and female-students in term of using writing strategies?
4. What is the relationship between writing achievement and writing strategy use?

## 2. Theoretical framework

The Hayes and Flower writing process model is one of the highly valued models. It provides detailed frame of how the writing process takes place in mind (Scarmadalia & Bereiter, 1986). This model contributed to establishing a theoretical model, which became a subject of discussion by supporters of empirical L1 and L2 writing process research (e.g., Yahya, 1994; Armengol-Castells, 2001; Kongpun, 1992). The model also contributed to clustering different sub-skills of the actual strategies that writers practice together. It also established interdisciplinary links among composition studies, cognitive science and psychology (Chien, 2008). Hayes and Flower (1980) identified three general phases of writing operation, which are firstly; planning includes the sub-operations of generating, organizing, and goal setting. It also encompasses the process of recalling the relevant information from long-term memory and the task environment. A writer will use such recalled information to establish goals and to develop a text that meets such intended goals. Secondly, translating includes taking material from long-term memory in accordance with the writer's plans and goals, and formulating sentences with it. Thirdly, reviewing aims to improve the quality of the text produced during the translation process.

### 2.1 Definition of key terms

Writing strategy: it is any of these actions or behaviors that are consciously followed by writers to produce efficient writing (Petric and Czar, 2003; Cohen, 1998). Writing strategies also refer to a set of mental processes that writers come cross while engaged in writing (e.g., Armengol-Castells, 2001; Kongpun, 1992; Yahya, 1994). It explains how writers approach their writing process, and how they can generate texts. They include pre-writing strategies, while writing strategies, and revision strategies. They are also can

be subsumed under the different broad types of writing strategies such as metacognitive and cognitive strategies.

Cognitive strategies refer to the strategies that assist the learner to employ the language materials in direct way (Oxford, 2003). They may include analysis, note-taking, summarizing, outlining. Some studies (Kato, 1996; Oxford & Ehrman, 1995) Metacognitive strategies refer to a learner's ability to identify his own learning styles preferences and needs (Oxford, 2003). They might include planning for a specific task, gathering, and organizing materials. Metacognitive strategies were found by Purpura (1997) to have "a significant, positive, direct effect on cognitive strategy use, providing clear evidence that metacognitive strategy use has an executive function over cognitive strategy use in task completion" (p. 61).

Language proficiency: Clark (1981) defines the term proficiency as "any measurement procedure aimed at determining the examinee's ability to receive or transmit in the test language for some pragmatically useful purpose within a real-life setting." (p.10). DeAvila and Duncan (1977) defined language proficiency as " the student's language skills in English which are learned in both school and natural set-tings...It is not necessarily dependent upon specific instruction or content...language achievement is more likely to be dependent upon proficiency than vice-versa." (P.111). in this study, it will be measured through the total score of the standardized English exam in Iraq of the lower secondary school stage.

## 2.2 Previous studies

Chen (2011) investigated writing strategies used by 132 Chinese college students, who are non-English majors. She also investigated the relationship between writing strategies and writing performance, and the predicative power of writing strategies for writing performance. To this end, adapted version of Petric and Czarl's writing strategy questionnaire and Oxford's framework of language learning strategies used as the instruments of the study. She

employed a writing strategy questionnaire and an interview as instruments of the study. The findings indicated that while-writing strategies are the most frequently used, followed by the pre-writing strategies, and finally revising strategies. It was also found that pre-writing strategies and revising strategies positively correlate with students' writing performance; and that writing strategies as a whole have certain predictive power for writing performance.

Abdul-Rahman (2011) attempted to identify the differences and similarities upon using writing strategies between three groups, namely native-speaker students born in Britain and Libyans and Chinese as non-native speakers. The study was mixed-method in nature, in which the researcher used semi-structure interviews and a questionnaire as instruments to collect the needed data. The questionnaire included three sections composed (72) items administered to (302) students in total, which was developed based on SILL'S Oxford (1990), writing strategy use of Petric and Czarl's (2003), and Writing processes and strategies of Soames (200), represent the phases of writing (prewriting, during writing, and revising). The finding found that a little differences in comparing native to non-native speakers upon using writing strategies, as well as the study found that the female sample used writing strategies more than males do at all stages. Al-Asmari (2013) investigated the using of writing strategies of (198) male and female students. The sample was chosen randomly from Al-Taif University\ College of arts to explore the relationship between writing strategies and writing achievement and how the writing strategy use differ in term of gender and level of apprehension. The needed data was collected by applying a mixed-method approach; semi-structure interview and writing strategy use questionnaire of Petric and Czarl's (2003) and SLWAI of (Cheng, 2004) were administered to the targeted sample. The findings of the study revealed that male students used more strategies than female students do in the total use. Additionally, the study found a significant positive correlation between writing achievement and

writing strategies use. Hammad (2013) explored the relationship between writing strategy use and writing performance of (66) Palestinian EFL university students. To collect the needed data, a self-developed questionnaire, writing an essay. In addition, a semi-structured interview was administered to the study sample. The findings of the study disclosed that all study sample categorized as low users of strategies as well as they showed a low level of performance in writing. Additionally, the study revealed a positive significant correlation between writing strategy use and writing performance of Palestinian EFL students. Maharani et al (2018) explored the writing strategies of Indonesian university students. The researcher adopted a mixed-method approach by observing, interviewing, and administering a questionnaire on the chosen sample to collect the needed data. The research findings found a significant difference between male and female upon using strategies in favor of female despite all the participants reported using all strategies. Furthermore, high-proficient students proved their competence in using writing strategies more than low-proficient students' use.

## 3. Methodology

### 3.1 Research design

A quantitative approach is considered to be appropriate for this study because the data are presented in figures. It is established that a quantitative approach depends on statistical data (Strauss & Corbin, 1990). This study, in particular, is survey-research study, whereby the main aim of using such kind of design was to investigate one or more variables and measure their degree of association (Creswell, 2013). It can also be viewed as a correlation study because it investigates the correlation between proficiency and writing strategy use. Creswell argues that utilizing the correlational design helps researchers to predict a score of one variable by depending on another variable. Thus, this study employs such correlational quantitative approach to

understand the correlation between the usage of writing strategies and writing achievement among low and high proficient users of the language.

### 3.2 Participants

A sample of (140) male and female students were chosen randomly from six-different-secondary schools at Al-karkh side in Baghdad city. The sample included (70 males and 70 females) are studying at the grade-six in secondary schools for the academic year 2017-2018. They have been studying English language for eight years at the time of conducting this study. Based on the final result of the English exam, they were assorted into two groups: high and low-proficient-students in which students who scored above 90% were grouped as high-proficient, in the same time, students who scored less than 65% grouped as low-proficient students.

### 3.3 Instrument

This study is basically based on Petric and Czarl's questionnaire (2003), which is a 5-Likert scale ranging from never true to always true. The validated questionnaire consists of three sub-sections. The first section includes items which discuss strategies followed before learners start writing an English essay; the second section includes items which discuss the strategies followed when and while writing an English essay. The third section includes items that unveil the strategies used for revising one's writing in English. The original version has translated with little modification as it was exposed to a group of experts specialized in educational studies to be more understandable and comprehensive for the participants. It formed a 3-point Likert scale ranging always to never. The students may not be able to distinguish between the nuances differences used in the questionnaire. Thus, it was reduced to a 3-point scale. In term of writing achievement, students' scores on final writing exam were employed to reflect writing achievement, in which two general topics were given on exam to write about.

**Reliability analysis**

**By conducting the pilot study, the researcher is guided about where the main research project could fail, where research protocols may not be followed, or instruments are inappropriate. In the pilot study, Cronbach's alpha was used to measure the internal consistency of the questionnaire, which accepted range should be (0.70 to 0.95) (Tavakol & Dennick, 2011). To check the Cronbach's alpha value for the internal consistency of the scores elicited by the instrument (i.e. the writing strategies' questionnaire), reliability analysis was conducted. Version (20) of SPSS was used to analyze the data. Cronbach's alpha value has found to be .718.**

## 3.4 Data analysis

**SPSS software was used to analyze the collected data. To answer question one, descriptive and inferential statistics were applied. As for question two and three, independent samples t-test to identify the differences between males and females as well as the low and high proficient students. Regarding question four, which is looking for the correlation between writing achievement and writing strategy use, Pearson product-moment correlation coefficient was applied.**

## 4. Results

**This part of research focuses on showing the findings of the research questions.**

1. **What is the overall usage of writing strategy by Iraqi secondary school students?**

**Table 1. The usage of writing strategies**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Mean | 140 | .37 | .58 | .5025 | .05032 |
| Valid N (listwise) | 140 | | | | |

To identify the values of mean and stander deviation of the overall usage of writing strategies, descriptive and inferential statistic was run as shown in table (1). The overall usage mean is (M =.5025, SD = .05032), which means secondary school students appeared as low users of writing strategies based on Oxford's classification (1990). He pointed out that students who scored mean over than 3.5 (M≥3.5) are a high strategy users and for those who scored (2.5≤M≤3.4) are a medium strategy users. While students who scored (M≤2.4) are grouped as low strategy users.

2. Do students with low-proficiency and high-proficiency differ in using writing strategies?

Table 2. results of using writing strategies of high and low proficient students

| | proficiency | N | F | t | df | Sif. (2-tailed) | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|---|---|---|
| Writing strategy | low | 70 | 1.396 | -.363 | 139 | .725 | 65.9142 | 4.8848 | .7168 |
| | high | 70 | | | | | 66.2384 | 6.1614 | .8739 |

To reveal if there is a difference between low proficient and high proficient students in using writing strategies, the researcher employed independent-samples t-test. Table's (2) results uncover that the mean scores of both groups (M = 66.238, SD = 6.161), (M = 65.914, SD = 4.884) respectly are slightly different. Thus, since independent samples t-test, t(129) = -.363, and p = .725, which is greater than alpha at the level of (0,05). It implies that low

proficient students do not show statistically significant difference compared to high proficient students.

3. Is there any difference between male and female-students in term of using writing strategies?

Table 3. results of using female and male participants writing strategy

| | Gender | N | f | T | df | Sig. (2-tailed) | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|---|---|---|
| Gender | females | 70 | 155 | 6.102 | 132 | .000 | 68.428 | 5.6376 | .63204 |
| | males | 70 | | | | | 61.2474 | 5.7218 | .62871 |

As shown in table 3, the mean score of females (M= 68.428, SD= 5.6376) is higher than males' mean score (M= 61.2474, SD= 5.7218). Thus, since independent samples t-test, t (132) = 6.102, and p = .000, which is lesser than alpha at the level of (0, 05). It implies that there is a statistically significant difference between male and female students in favor of females upon using writing strategies. It is evident that female students use more strategies compared to male students.

4. What is the relationship between writing achievement and writing strategy use?

Table (4) Correlations

| | | total | proficiency |
|---|---|---|---|
| strategies | Pearson Correlation | 1 | .365** |
| | Sig. (2-tailed) | | .000 |
| | N | 140 | 140 |
| achievement | Pearson Correlation | .365** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 140 | 140 |
| ** Correlation is significant at the 0.01 level (2-tailed) | | | |

To examine the relationship between writing achievement and the use of writing strategies on a test, the researcher employed Pearson's correlation coefficient test. As shown in table 4, the outcome disclosed that writing achievement is positively correlates with writing strategy use (r=.365), which means they move on parallel directions. In another meaning, the more use of writing strategies, the more students will receive scores in content and language on a test.

## Discussion

This study is quantitative in nature has answered four raised questions. For question one, the mean score of writing strategy use was (.5025), which reports participants as low users of strategies based on Oxford's classification (1990); it is consistent with that study of Wang (2012). For researcher, students' lack of using writing strategies may be attributed to the unawareness of these strategies, the lack of optimum use for these strategies, teacher's negligence in describing the importance of using writing strategies, or it could be students' commitment to a particular pattern in writing.

As for question two that seeks for the difference between low and high proficient students in term of using writing strategies, the result is congruent with those of (Maarof and Murat, 2013; Nooreiny and Mazlin, 2013; Alkubaidi, 2014) has found high-proficient students do not show statistically significant difference compared to low-proficient students. Put it in another word, both students' group showed an equal use of writing strategies in writing task. It is contradicted to the findings of studies conducted by (Zamel 1976, 2007; Cohen 2000; He, 2016; Liu, 2015; Sadi, 2012; Chien, 2008) revealed proficient students performed well on writing task due to the better use of writing strategies than low proficient student performance. Considering the difference between male and female students on the level of using writing strategies, the result of current study is compatible with outcomes of studies carried out by Green & Oxford (1995), Kavasoğlu (2009), Peñuelas, 2012, Mc

Mullen (2009), Liu (2015) which revealed a significant difference in using strategies between males and females in favor of females. This means that female students reported as more frequent users for writing strategies than male students do. This difference could be related either to the extensive knowledge of the language or the genetic difference between sexes as an innate formation. In term of the relationship between writing achievement and writing strategy use, the results of Kleitman and Stankov (2007), Al Asmari (2013), Chien (2012) are consistent with the finding of the current study. A positive correlation has found between writing strategy use and writing achievement. The more strategies students use on writing task; the higher the achievement will be on test, and vice versa.

## Importance of Teaching Strategies

Using writing strategies seems to be not that important for achieving mastery of writing. Lei (2008) argues that most L2 learners use some writing strategies, but without being aware of that, and without being aware of the mediated processes or potential strategies and how to use them efficiently. Thus, Lei (2008) suggests that teachers should raise their students' awareness of such strategies. Likewise, Van der Veer and Van Ijzendoorn (1985) argue that instruction would influence the natural upward movement from lower order processes to higher order ones. Many strategies discuss how to teach writing and to keep students motivated all the time in classroom.

## Conclusion and recommendation

The results disclosed that Iraqi students as low strategy users. As for proficiency level, it was found no significant difference between high and low proficient students in terms of using strategies. Regarding the effect of gender in using writing strategies, the study found a significant difference

between female and male students at the level of using strategies. Females found to be higher users for strategies than males. The results also showed a positive correlation between writing strategy use and writing achievement. Based on the findings of this study, the researcher recommends conducting studies that investigate the writing strategies using a mixed method approach. In other words, future studies should consider the causes of the improper use of some strategies. Why students do not use some strategies, while they use other types of strategies. Furthermore, teacher should take his role in teaching students the proper use of strategies that improve their writing performance.

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