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The Impact of the Look, Say, Cover, Write, Check Method on the English Spelling Performance of Iranian Students

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Abstract

Spelling is an essential part of literacy that helps students in all grades learn English successfully. EFL students have not been taught how to write words correctly. Even those few teachers who are instructing spelling based on traditional methods have failed to provide adequate help to their students because they are unaware of the most effective spelling methods and employ outdated spelling theories. The purpose of the present study was to investigate the effect of the Look, Say, Cover, Write, Check (LSCWC) method on the English spelling performance of Iranian students. This study included 37 students in the ninth grade, ages 15 to 16, and was conducted at a public boys' school in Tehran, Iran. The study employed a quasi-experimental design with a pre-and post-test. The experimental group was trained to spell 120 words throughout 24 sessions using the LSCWC method, while the control group received no treatment. The instruments consisted of pre- and post-spelling tests as well as an attitudinal questionnaire. The Mann-Whitney U test results showed that the participants in the experimental group significantly outperformed the control group on the spelling post-tests. Moreover, according to the results of the attitudinal questionnaire, most respondents were satisfied with the LSCWC method. The LSCWC method needed less one-to-one instruction and increased students' confidence and autonomy when learning new words. The findings of this study will help policymakers, curriculum designers, materials developers, teacher trainers, and language teachers figure out how to assist junior high school students who have trouble with spelling.

Keywords: spelling methods, spelling performance, LSCWC method, Iranian junior students, perception

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1. Introduction

It has been argued that second language reading comprehension and grammatical development in young learners may be correlated with vocabulary knowledge (Zakian, 2022). Students who struggle to learn to spell by employing traditional spelling methods may benefit from research-based spelling methods like the Look, Say, Cover, Write, Check (LSCWC) method and its variations (Cates et al., 2007; Erion et al., 2009; Fisher et al., 2007; Jaspers et al., 2012; Westwood, 2014b). Such methods encourage the students to work at their own pace and are ideal for making the most of the teachers' instructional time (Mesmeh, 2012). Furthermore, this student-centered method enables the students to become stronger spellers, take responsibility for their learning, and develop an enthusiasm for learning to spell.

Spelling has been defined in many different ways throughout the years by various researchers. Perhaps the most powerful definition of spelling will be that of Hallahan et al. (1985, as cited in Singh & Beale, 1992), who incorporated parts from several definitions to produce a comprehensive yet simple description:

Spelling is a process that requires a person to produce in oral or written form the correct sequence of letters that form a particular word. The correct sequence of letters is produced by converting phonemes (sounds) into graphemes (written letters). Phonemes may be covertly produced, or thought, as well as heard. (p.391)

To learn, converse, and participate in social activities, individuals need to enhance their unique knowledge base that is essential for reading and writing, including spelling abilities (Daigle et al., 2020). In an age of constantly changing digital communication technologies (like text messages, emails, and messages sent through social media platforms), it is more important than ever for people to be able to spell words correctly in a variety of situations (Daffern & Fleet, 2021).

Spelling, which Cook (1997) refers to as a "sign of education" and is critical for second or foreign-language learners, has received less attention in the field of education (Al-zuoud & Kabilan, 2013; Fuchs et al., 2019; Haggan, 1993; Meeks et al., 2020; Puliatte & Ehri, 2018). Even though spelling is responsible for many students' errors in writing English, it has been mostly ignored in teaching methodologies and textbooks (Al-Othman, 2003).

For both native and non-native English speakers, spelling is a significant challenge. Developing spelling ability is very complicated for many students (Apel, 2011; Daigle et al., 2020; Graham & Santangelo, 2014; Jaffré & Fayol, 2013).

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Many Iranian students struggle with spelling, as seen by their English grades on the midterm and final exams. Given the importance of English as an international language in global trade and the fact that research on the second language writing system has been overlooked in most regions of the world, including Iran, it is important to improve the comprehension of the English writing system (Abdolrezapour & Eslami-Rasekh, 2010).

In 1919, Ernest Horn created and applied the LSCWC method for the first time (Ott, 2007).

This is a simple and efficient method for learning to spell. If children are trained to learn a new word in this way, they will always be successful in recalling the spelling (Grant, 2002).

According to Ott (2007), students should follow these steps in the LSCWC method:

First, look at the word and take a picture of it in your mind.

Second, pronounce the word when looking at it and listening to the sounds it makes.

Third, look at the letters and spell them out loudly while saying their names.

Fourth, cover your eyes and concentrate on the word in your head.

Fifth, write the word.

Finally, check the spelling by comparing it to the original version of the word.

Based on the review of previous studies, no studies have investigated the effect of the LSCWC method on enhancing English spelling performance as well as the students' perceptions of the LSCWC method using a questionnaire simultaneously. If it is supposed that a spelling method would be successful, English learners should declare their acceptance and interest. Otherwise, the endeavor of both teachers and learners would be worthless. In other words, the feedback of the students plays an important role in choosing a suitable spelling program. Many researchers in previous spelling studies ignored the perceptions of the learners. Therefore, this study tried to bridge the gap in the literature concerning the effectiveness of this method and also the feedback of the students on it.

The results of this study will help teachers with correcting spelling difficulties in

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their students. In fact, they could expand their experience in teaching English, particularly spelling. On the other hand, the findings can help students by presenting a new spelling method that helps them enhance their spelling performance. As a result, students' reading and writing skills will improve, and their frustration with spelling may decrease. Finally, the results might be useful to EFL researchers and syllabus designers.

Research Questions

The current study aimed to answer the following two research questions:

1- Does the LSCWC method affect the English spelling performance of Iranian junior students?

2- What are the perceptions of Iranian junior students towards the LSCWC method as a spelling method?

The following hypothesis was developed in order to address the first research question indicated above: The LSCWC method does not affect the English spelling performance of Iranian junior students.

2. Literature Review

2.1. Theoretical Framework

It appears that spelling is one of the most common problems among Iranian EFL students (Alipour et al., 2019, 2021; Mehrpour & Ghayour, 2017). One of the reasons spelling is difficult for English language students is that there is no strong relationship between the sounds and letters in English words.

A long time ago, it was considered that teaching spelling required just a visual imagery (whole-word) approach, using the well-known 'look, cover, write, check' (LCWC) strategy as being the most recommended technique (Westwood, 2014a). Later, the same LCWC principles were integrated into other very similar strategies with various names: Look-Say-Cover-Write-Check, Look-Say-Name-Cover-Write-Check, Cover-Copy-Compare, Spelling With Imagery (SWIM), and Trace-Copy-Recall (TCR).

The Look, Say, Cover, Write, Check (LSCWC) method, as well as its variations, has been widely recommended in the literature as a way to help students learn new

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words (Dymock & Nicholson, 2017; Fisher et al., 2007; Fulk, 1996; Mahmoud El-Bassuony, 2014; Westwood, 2014b).

2.2. Empirical Studies

A study by Fulk (1996) indicated that students who used a variant of the LSCWC method performed better in their spelling performance. Students with learning disabilities in grades 7 and 8 were assigned to three experimental conditions: strategy training, strategy training with attribution instruction, and a traditional study control. A five-step study method with explicit strategy transfer training was provided to participants in both strategy training conditions. The results showed that the strategy training condition outperformed the other training conditions regarding spelling recall scores.

Moreover, Berninger et al. (1995, as cited in Westwood, 2005) taught specific spelling strategies to children who struggled with spelling at the end of grade 3 as a more significant intervention to improve their writing ability. They primarily taught a visual imagery-based spelling method. Twenty-four children with writing problems were taught automaticity, spelling strategies, and the composing process in 14 one-hour individual tutorials (Berninger et al., 1995). Half of the children (8 boys and 4 girls) received additional composition practice, while another half (8 boys and 4 girls) received orthographic imaging (the LCSWC method) and phonological coding instruction. The treatment groups were compared to the control group using repeated-measures ANOVA at the pre-test, mid-test, post-test, and follow-up. At the 6-month follow-up, differences between the treatment and control groups on specific handwriting, spelling, and composition assessments favored the treatment groups.

In another study, Butyniec-Thomas and Woloshyn (1997, as cited in Westwood, 2005), carried out a study that confirms the importance of instructing children to visualize target words. For part of the imagery training, students were asked to close their eyes and pretend they were typing or painting the word on a blackboard or screen. They compared three groups: the one that got explicit strategy training alone (words not in context), another that received explicit strategy training involving whole language context words, and the third group that participated in whole language writing activities, but did not get explicit strategy training. The strategy training plus the whole language group achieved the best spelling results.

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The method that employed the whole language without explicit instruction proved to be the least successful.

In a similar study done by Dymock and Nicholson (2017), they compared two typical approaches to spelling instruction: rule-based and visual memory. In the first intervention, students in the strategy group learned vowel sound spelling strategies, syllable-breaking strategies, and the doubling rule. In the second intervention (list group), students used a look, say, cover, write, check, and fix strategy, listed words alphabetically, and wrote them in sentences. In order to obtain feedback on the courses, questionnaires were also sent to students and analyzed. In reference to the question "What things have helped you the most?", in the list group, students noted: look, say, cover, write, check, fix strategy, writing sentences, alphabetical order. According to the results, both the list and strategy groups outperformed the control group in the spelling of trained words.

Similarly, Mahmoud El-Bassuony (2014) investigated the effectiveness of a self-monitoring-based treatment method in enhancing English spelling accuracy and self-efficacy in EFL primary school students with attention deficit hyperactivity disorder (ADHD). The teacher taught every student in the experimental group a five-step spelling study strategy during an orientation session before the treatment. The steps of a spelling strategy used by Harris et al. (2005) were modified by the researcher: "(a) look at the word, (b) spell the word loudly, (c) cover the word, (d) write the word three times, and (e) check to ensure whether the word is properly spelt" (p.149). The study showed that the self-monitoring method increased English spelling accuracy and self-efficacy in both ADHD students and their normal counterparts.

Likewise, another study by Fisher et al. (2007) investigated the effectiveness of two spelling strategies for remediation: the Look, Say, Cover, Write, Say, Check and Old Way/New Way approaches. In addition, the students completed a quick questionnaire on their experience in the program. Four items were devoted to how the participating students felt about the spelling remediation program. Results indicate that students are more satisfied with the program than with the traditional spelling instruction in school.

Considering all of the studies reviewed, this study sought data to fill the gaps in the research literature on the LSCWC method. Most studies have been conducted in the mother tongue of students worldwide (English). This study, however, was performed in the students' foreign language. Based on a review of the literature, this

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is the first of these types of studies in the Iranian EFL context. Although some studies have been conducted on elementary school students in different countries, there is a striking lack of studies concentrating exclusively on junior high school students. Previous research heavily relied on standard spelling tests such as the Wide Range Achievement Test – 4 (WRAT4), the Test of Written Spelling (TWS-5), the Diagnostic Spelling Test – Irregular Words (DiSTi), the South Australian Spelling Test (SAST), the Test of Written Spelling (TWS), and so on. However, in the current research, the words used for teaching and testing are dependent on the students' textbook. Finally, some previous research overlooked students' perceptions of the spelling technique, but the present study investigated students' perceptions of the LSCWC method using a questionnaire.

In view of all that has been mentioned so far, the gaps in the literature indicate that further study is needed on the LSCWC method. As a result, this research aimed to study the effect of the LSCWC method on the English spelling performance of Iranian junior high school students and to evaluate their perceptions towards the LSCWC method.

3. Methodology

3.1. Participants and Setting

Participants in this study were ninth-grade students in a public junior high school in Tehran, Iran. The data for this study came from 37 ninth-grade male students, ranging from 15 to 16 years old. Two classes were selected for the current study. The participants were non-randomly allocated to two groups: experimental and control. There were 19 students in the experimental group and 18 students in the control group. The experimental group was taught how to spell words using the LSCWC method, whereas the control group got no treatment. The current study used a quasi-experimental pre-test post-test control group design.

3.2. Instruments

To investigate the effect of the LSCWC method on the English spelling performance of Iranian high school students, two instruments were used: spelling tests as pre-and post-tests and an attitudinal questionnaire. The spelling tests were developed based on the English textbook for Iranian junior high school students in

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grade 9 and given as pre-tests and post-tests. The spelling test format and procedures used in this study were adapted from the South Australian Spelling Test (SAST). These spelling tests were created to measure participants' spelling performance. The SAST test was reviewed and revised in accordance with the words of the student book and workbook (Prospect 3). The first two lessons from both books were selected to develop the test.

The prepared spelling tests consisted of 120 words and were administered to students as pre-tests and post-tests prior to and following the intervention program, respectively. Since these tests were researchers-made, they were piloted on a random sample of 27 ninth-grade students from the same school to evaluate the appropriateness, practicability, and reliability of the test items. The gathered pilot study data were analyzed statistically with SPSS software to find out how reliable the test was. The Cronbach Alpha reliability for lesson one was 0.976, and it was 0.974 for lesson two.

To ensure the validity of the researchers-made tests, the language background of the students, the participants' mortality, the equivalence between pre- and post-tests, and test instructions were controlled. In addition, based on the scores from the piloted tests, item analysis including item facility and item discrimination was computed, resulting in omitting and revising the defective items. Moreover, the researchers examined and analyzed different international standard spelling tests before deciding which format would fulfill the study objectives in terms of reliability and validity. As s result, the South Australian Spelling Test (SAST) was chosen as the best option, and necessary adaptions were made in the case of its format. Finally, the sample tests were given to two university professors, who majored in TEFL, for any proofreading and comment.

A questionnaire was employed to collect data on the second research question, which was about the perceptions of Iranian junior students towards the LSCWC method as a spelling method. For this study, a modified version of the questionnaires made by Nahari and Alfadda (2016) and Zannikos et al. (2018) was used. Before the students completed the questionnaire, it was piloted to ensure its reliability. Since the students' native language was not English, the questionnaire statements were translated into Persian to help the students interpret the items simply. The questionnaire had 15 statements, and the students were required to respond to them on the Likert 5-point scale: completely disagree, disagree, neutral, agree, and completely agree at the end of the study. The reliability index of the

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questionnaire was .863. As a result, it can be concluded that the perceptions questionnaire had a high-reliability index.

3.3. Materials

Word lists, audio files, and LSCWC materials were used as treatment materials in this study. Two lists of 120 words, each with an equal number of words, were prepared, i.e., word list I had 60 words, and word list II had 60 words. More specifically, word lists I and II were generated from lessons one and two, respectively. The Prospect 3 student book and workbook, written by Alavimoghadam et al. (2015), was used as the source material. The words in the wordlists were chosen according to their frequency and complexity (simple, digraph, silent letter, double letter).

The audio files of the word lists were given to the students, so they could practice pronouncing the new words on their own.

To carry out this study, three types of LSCWC materials were created: LSCWC GIF images, LSCWC worksheets, and supplementary worksheets.

One GIF picture was created for each new word (for 120 words) using the LSCWC method. During the days of the intervention program, the researchers quickly and easily uploaded the GIF files, and after downloading them, it was easy for the students to follow the steps in the LSCWC method in the order they were given.

Throughout the LSCWC intervention, participants were provided with LSCWC worksheets. These worksheets were designed to supplement the LSCWC method. The students completed the researchers-designed worksheets to improve the efficiency of teaching spelling words using the LSCWC method. In other words, the worksheets were designed to improve students' spelling performance and compensate for shortcomings in spelling learning by using the LSCWC GIF pictures. The worksheets comprised 120 words printed on the left side. In the first column, the new words were written. The remaining columns contained the LSCWC method steps: Look, Say, Spell; Number of letters; Word shape; Cover, Write, Check; and Correction. The first word on the worksheet was done as a model.

Finally, in addition to the LSCWC worksheets, some supplementary worksheets

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were designed to motivate the students, make learning more engaging, reinforce recalling target words, boost visual memory, and check their learning informally. To do so, six multiple-choice (MC) worksheets were created, i.e., three MC worksheets for each lesson. The students were asked to complete the supplementary worksheets in such a way that only the best option (correct spelling) was chosen.

3.4. Procedure

Because the schools were closed due to the COVID-19 pandemic, classes went online at the start of the school year. Throughout this study, students attended online classes in the second semester of the 2020–2021 academic year. The lessons were conducted through the Soroush Plus messenger. The participants were chosen at random from two ninth-grade classes from a junior high school in Tehran, Iran. The study was done in 24 sessions over six weeks during the second academic semester. The LSCWC method was used to teach the students the spelling of 120 words during those sessions. All students in the experimental group were subjected to these procedures in the following order throughout the study: pre-test, the LSCWC method, practice, online spelling tests, and post-test. The cycle of pre-test, the LSCWC method, practice, online spelling tests, and post-test was also repeated for lesson two.

The spelling pre-test was given to both the control and experimental groups two days before the treatment. There were 30 words in the spelling pre-test. The words were chosen on a scale of extremely easy to extremely difficult. In fact, all the students successfully spelled the easy words. However, only the best spellers correctly spelled the most difficult ones.

According to what the students were taught, the same words were repeated three times during the pre-test: First, each word was pronounced separately. Second, the target word was pronounced inside a sentence, and finally, it was pronounced alone, as in “Number 15: BRAVE. That man is a brave firefighter. Write BRAVE.” After the third repetition, the students in their answer sheets wrote the test word in front of the written numbers. If they were unable to spell a word, they should draw a line in the space provided and wait for the next word to be said. The students were asked to try to spell as many words as they could. They got 15 minutes to complete the pre-test. It is worth noting that the above procedure was used to conduct the pre-test for both lessons one and two. In the experimental group, the LSCWC method

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was used to teach the spelling of 120 words in six sessions, 20 words per session. The other 18 treatment sessions were spent introducing the LSCWC method and its steps to the students, solving worksheet exercises, practicing word pronunciation, and taking the online spelling tests, as well as pre- and post-tests.

The LSCWC and supplementary MC worksheets are included in the practice section. The students completed these worksheets to improve the efficiency of teaching spelling words using the LSCWC method. The worksheets had 120 words derived exactly from the word lists I and II (Lessons 1 and 2). After the experimental group finished the LSCWC and supplementary MC worksheets, they were given six online spelling tests with 120 words (an online spelling test with 20 words from each LSCWC worksheet).

These online spelling tests were developed to assess students' improvement and monitor their spelling performance throughout the treatment program. The post-tests were administered to the students in the experimental group following completing and submitting the LSCWC worksheets and participating in online spelling tests. The post-tests, like the pre-tests, consisted of 30 words. The post-spelling tests took 15 minutes to complete. The post-tests were administered in the same way as the pre-tests. The only change was that the items on the post-spelling tests were different from the pre-spelling tests. It should be noted that some students from both the experimental and control groups were excluded from the study for failing to complete all the pre- and post-tests. They were either absent from one or more of the scheduled assessments. In fact, the exact number of participants after excluding the absentees was 37.

The experimental group of students completed an attitudinal questionnaire including 15 items at the end of the research. The questionnaire was designed to collect Iranian junior students' perceptions of the LSCWC method as a spelling method. To do so, the link to the online questionnaire was shared with all students in the experimental Soroush Plus group. The students in the experimental group completed the questionnaire successfully.

The independent-samples t-test and its non-parametric equivalent, the Mann-Whitney U test, were used to assess the spelling pre-tests and post-tests. Perception data were analyzed using frequencies and percentages.

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4. Results

The results of the study are reported in this section:

4.1. Testing the Normality of the Pre-tests and Post-tests of Spelling

Table 1 shows the skewness and kurtosis indices, as well as their ratios over the standard errors. Except for the experimental group's spelling post-test results, the skewness and kurtosis ratios were less than +/- 1.96 (Field, 2018). As a result, two sets of analyses were done to analyze these scores. That is, the spelling pre-tests were examined using an independent-samples t-test, while the post-tests were investigated using a non-parametric Mann-Whitney U test.

Table 1

Testing Normality of the Pre-tests and Post-tests of Spelling by Groups

		N	Skewness			Kurtosis		
Group		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Experimental	Pre-test	19	-.839	.524	-1.60	-.561	1.014	-0.55
	Post-test	19	-2.069	.524	-3.95	4.093	1.014	4.04
Control	Pre-test	18	-.349	.536	-0.65	-.524	1.038	-0.50
	Post-test	18	-.614	.536	-1.15	-.667	1.038	-0.64

4.2. Reliability Indices

Table 2 presents the descriptive analysis and KR-21 reliability indexes for the spelling pre- and post-tests. It was found that both tests had reliability indices of .91.

Table 2

Descriptive Statistics and KR-21 Reliability Indices of the Pre-test and Post-test of Spelling

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	KR-21
Pre-test	37	2	30	19.09	7.482	55.984	.91
Post-test	37	10	30	25.14	6.002	36.023	.91

The Cronbach's alpha reliability index for the perception questionnaire is shown in Table 3. The reliability index of the questionnaire was .863. Tseng et al. (2006) and Dörnyei and Taguchi (2009) both said that a Cronbach's alpha value of .70 is a sufficiently reliable indicator for an instrument. Therefore, it can be concluded that

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the perception questionnaire had a high level of reliability.

Table 3

Cronbach's Alpha Reliability Statistics: Perception Questionnaire

Cronbach's Alpha	N of Items
.863	15

4.3. Comparing Groups' Means on the Pre-tests of Spelling

An independent-samples t-test was used to compare the means of the experimental and control groups on spelling pre-tests to demonstrate that the two groups were homogeneous in terms of spelling performance before the treatment was administered. The descriptive statistics for the two groups on the spelling pre-tests are shown in Table 4. The results revealed that the experimental (M = 17.92, SD = 7.74) and control (M = 20.33, SD = 7.20) groups had nearly equal means on the spelling pre-tests.

Table 4

Descriptive Statistics: Pre-tests of Spelling by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre-tests	Experimental	19	17.92	7.746	1.777
	Control	18	20.33	7.201	1.697

The results of the independent-samples t-test are displayed in Table 5. Before delving into the results, it should be highlighted that the assumption of variance homogeneity was retained. The non-significant results of the Levene's test (F =.679, p >.05) revealed that the two groups were homogeneous in terms of their variances on the pre-tests, as shown in Table 5. That is why the first row of table 5 was reported, i.e., "Equal variances assumed."

The results of the independent samples t-test revealed that there was no significant difference between the means of the two groups on the spelling pre-tests (t (35) =.980, p >.05, r^1 [1] =.163, indicating a large effect size). As a result, it can be concluded that the two groups were homogenous concerning spelling ability before treatment administration.

[1] The r-effect size should be interpreted based on these criteria: .10 = Weak, .30 = Moderate, and .50 = Large (Field 2018).

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Table 5
Independent-Samples t-test: Pre-tests of Spelling by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Equal variances assumed	.679	.416	.980	35	.334	2.412	2.462	-2.587 7.411
Equal variances not assumed			.982	34.989	.333	2.412	2.457	-2.577 7.401

4.4. Exploring the First Research Question

To investigate the first research question, a non-parametric Mann-Whitney U test was used to compare the median (Mdn) spelling post-tests scores of the experimental and control groups. Table 6 showed that the experimental group (Mdn = 29.50) had a greater median score on the spelling post-tests than the control group (Mdn = 21.75).

Table 6
Median Scores, Mean Ranks on the Post-tests of Spelling by Groups

	Group	N	Mean Rank	Sum of Ranks	Median
Post-testS	Experimental	19	24.47	465.00	29.50
	Control	18	13.22	238.00	21.75
	Total	37			

The Mann-Whitney U test results are shown in Table 7. The results (Z =-3.18, p.05, Glass Rank Biserial Correlation =.608, indicating a high effect size) revealed that the experimental group outperformed the control group on the spelling post-tests. As a result, the first null hypothesis was rejected.

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Table 7
Mann-Whitney U Test: Post-tests of Spelling by Groups

	Post-tests
Mann-Whitney U	67.000
Wilcoxon W	238.000
Z	-3.189
Asymp. Sig. (2-tailed)	.001

4.5. Exploring the Second Research Question

Table 8 shows the respondents' perceptions of the LSCWC method in terms of frequencies and percentages. The results indicated that the majority of respondents[1] (n = 120, or 42.6%) strongly agreed with LSCWC. Another 39.36 percent agreed with the LSCWC method, whereas 1.77 percent strongly disagreed and 4.26 percent disagreed with this method of spelling teaching. Furthermore, 12.06 percent of the respondents had no idea.

Table 8
The Frequencies of Perceptions towards the LSCWC Method

		Frequency	Percent
Choices	Strongly Disagree	5	1.77
	Disagree	12	4.26
	No Idea	34	12.06
	Agree	111	39.36
	Strongly Agree	120	42.55
	Total	282	100.0

5. Discussion

English is one of the most significant and widely taught subjects in schools. One of the difficulties that Iranian students have when learning English, particularly in junior high schools, is a lack of spelling ability. Poor spellers not only gain lower

[1] Since the perceptions questionnaire had 15 items and the experimental group included 19 students, the sum of responses could have been 285. There were three missing responses. The total was 282.

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marks in English tests and fail frequently, but they also become increasingly frustrated and lose confidence as English learners. As a result, students should be provided with an effective method for learning to spell quickly and easily. More frequent use of language learning strategies may be attributed to more autonomy in learning and self-regulation (Soodmand Afshar & Bayat, 2021).

Moxam (2020) points out that English orthography is opaque; that is, there is no close relationship between a phoneme (sound) and a grapheme (letter). That is why spelling learning is complex and difficult for beginners or poor spellers. Therefore, spelling learning takes more time in English than in languages with transparent (regular) spelling systems (Marinelli et al., 2015).

According to Westwood (2014b), visual sequential memory plays an important role in remembering and recalling groups of letters in the correct order in words. Visual memory is a theory of spelling development. Westwood (2018) believes that spelling ability depends on the visual perception of the word. Moreover, Peters (1985, as cited in Westwood, 2018) argued that children should be taught to pay more attention to word structure and adopted the LSCWC method to help them improve their visual memory.

Spelling should be taught systematically and explicitly (O'Sullivan & Thomas, 2007; Ott, 2007). The LSCWC (also known as Cover, Copy, Compare) and its various versions are a common method for learning how to spell irregular words in English and are still under research (Dymock & Nicholson, 2017; Jaspers et al., 2012). The most conventional way of teaching spelling is the whole-word approach. The LSCWC method is one example of this approach, and its purpose is to enhance visual imagery, recognition and recall of letter patterns (Westwood, 2008).

In the current study, before the intervention, the students in both groups had similar scores, but on the post-tests, the students in the experimental group outperformed the students in the control group. These results add to the evidence that the LSCWC method is an effective method of teaching spelling. The findings of this study also showed that the LSCWC method successfully improved the spelling performance of the students. It seems that many reasons are involved in this progress.

The LSCWC method gave poor spellers the motivation and individual attention they needed to improve their spelling by letting them use a specific spelling method. The LSCWC worksheets and online spelling tests provided poor spellers with the

[DOR: 20.1001.1.23223081.1401.0.0.229.1]
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opportunity to practice self-monitoring strategies to observe and track their improvement in spelling performance.

Learning to spell using the LSCWC method was simple, fun, and interesting to the poor spellers. They were tired of learning to spell by traditional methods like writing a word many times in their notebooks. That was why they welcomed a new method that taught the spelling of new words as quickly and effortlessly as possible. Furthermore, the participants, as teenagers, loved the LSCWC method, and using this method triggered their curiosity, so they used this method eagerly.

The students took responsibility for their learning. In addition, while learning to spell, their confidence was boosted by using the LSCWC method. Moreover, this method needed fewer one-to-one relationships in the online classroom, and the students became autonomous with the least amount of assistance while learning to spell. That was why the LSCWC GIF pictures were used through the Soroush Plus messenger to teach the spelling of the words. Multimedia education, which employs several sensory channels during education, is one of the innovative educational strategies that is currently used to teach children (Mohammadi & Radbakhsh, 2017).

There were two goals for this study. The first was to investigate the effect of the LSCWC method on junior high school students' spelling performance, and the second was to evaluate the students' perceptions towards the LSCWC method. The first research question was whether the LSCWC method had any effect on the English spelling performance of Iranian junior students. The research hypothesis was that the LSCWC method does not affect the English spelling performance of Iranian junior students. After analyzing the results, the null hypothesis was rejected. As a consequence, the research showed that the spelling performance of the students in the experimental group who employed the LSCWC method improved considerably when compared to the control group.

The LSCWC method has been shown in empirical studies to be an effective method for teaching spelling. It indicates that the students were able to spell words correctly after using the LSCWC method. This study offered strong support for previous studies that confirmed the effectiveness of the LSCWC method and its variations in improving spelling performance, such as Fulk (1996), Berninger et al. (1995, as cited in Westwood, 2005), Fisher et al. (2007), Mahmoud El-Bassuony (2014), and Dymock and Nicholson (2017).

[DOR: 20.1001.1.23223081.1401.0.0.229.1]
[DOI: 10.48311/LRR.14.3.163]

The LSCWC method and its variations have been demonstrated to be effective in several studies. For instance, the present study supports the ideas of Fisher et al. (2007), who compared the effectiveness of "Look, Say, Cover, Write, Say, Check" (LSCWC) and "Old Way/New Way" methods. Pre- and post-test results showed a considerable improvement for both groups, but neither strategy emerged as better than the other in the statistical analysis. In this study, the effectiveness of two training programs was compared, containing the elements of the principles as a combined approach, self-correction of errors, individualized instruction based on the spelling age of the child, and strategy training. The study, founded on above mentioned instructional principles, demonstrated the importance of theory and research in spelling performance. Namely, Westwood (2018) argued that spelling ability is completely relying on good visual memory. Fisher et al.'s (2007) study shows the benefit of the intervention in spelling development by paying attention to a mix of visual-based strategies and self-correction of errors. When teaching children struggling with spelling, a combination of "instruction-centered" and "child-centered" approaches might help them better understand how the English spelling system works and develop clear visual imagery for the spelling of words. The LSCWC method, therefore, supports the relationship between the phonological and orthographic features of the word in visual memory. The second objective was to evaluate student perceptions of the efficiency of the program. The results demonstrated that the students felt happy about this spelling program.

One reason for this improvement was attributed to the role of one-on-one training of the pre-service teacher students through word-structured instruction. Contrary to expectations, this study did not find a significant difference in the dominance of the LSCWC method over the Old Way/New Way or vice versa. A key strength of this study was comparing the two different spelling methods at the same time. Baxtor (2000, as cited in Fisher et al., 2007) believes that the LSCWC is the best way for learning new words, which is in the agreement with the present study. A major limitation of this research is that it was carried out in after-school-hours rather than during the school schedule.

This study also accords with Mahmoud El-Bassuony's study (2014), which proved that the self-monitoring strategy dramatically improved English spelling accuracy and self-efficacy for both attention deficit hyperactivity disorder (ADHD) students and their non-ADHD peers. According to this study, no studies have been conducted on the impact of the self-monitoring strategy on enhancing the spelling

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accuracy of students with ADHD. The findings are consistent with self-efficacy theory, which includes perceptions of self-reported confidence in doing a specific task successfully. In fact, a teacher can create self-efficacy within students. In regard to the results, some factors contributed to considerable progress in spelling. Firstly, ADHD learners who employed the LSCWC method received the motivation and individual attention that were necessary for improving their spelling ability. Secondly, ADHD learners had the opportunity to practice self-monitoring strategies by recording their progress while learning to spell. Thirdly, it was enjoyable and motivating to color the stars on the self-monitoring cards. Finally, ADHD learners were motivated by observing the other learners using the LSCWC method. Therefore, their behavior was regulated and they did the spelling tasks carefully. An implication of this study is the possibility that it may provide the foundation for other studies to improve various skills in different language learning contexts in terms of self-monitoring strategy.

The findings of the present study are in line with other studies, such as that of Dymock and Nicholson (2017), who compared two popular approaches to spelling teaching: rule-based and visual memory. Students learned spelling strategies for vowel sounds, syllable breaking strategies, and the doubling rule in the first intervention. Moreover, they employed a Look, Say, Cover, Write, Check, and Fix strategy in the second intervention, listing words alphabetically and writing them in sentences. According to the results of their study, both the list group and the strategy group outperformed students in the control group in the spelling of trained words. This study produced results that corroborate the findings of Dymock and Nicholson (2017). In both studies, visual memory was considered a common theory in teaching spelling. In this regard, repetition and memorization are critical for learning to spell for two reasons: instead of thinking of the rule that follows, the spelling of the word is remembered with practice. Second, English has many words with irregular spelling, so rote learning of these words can be time-saving and effective. Moreover, the results of both studies showed that it was better to teach spelling than not to teach at all. Concerning the second research question, the results of both studies confirmed that the respondents who completed the attitudinal questionnaire liked using the spelling method and mentioned that the intervention program helped them become better spellers.

The results of the present study, like the Fisher et al. (2007) and Dymock and Nicholson's (2017) studies differ from the Mahmoud El-Bassuony's study (2014) in

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that in their studies, only normal learners participated, but in the second one, both ADHD learners and their normal peers attended. Nevertheless, Mahmoud El-Bassuony's study (2014) suffered from some methodological limitations, such as the length of the study, the selected vocabulary items, the characteristics of the subjects, and the sample size.

According to the second research question, which was aimed at exploring the students' perceptions towards the LSCWC method, the results of this study were consistent with the findings of some studies on the LSCWC method and its variations (Dymock & Nicholson, 2017; Fisher et al., 2007; Jaspers et al., 2012; Williams, 2020; Zannikos et al., 2018). In other words, the attitudinal questionnaire completed by the participants revealed that nearly all of them were satisfied with the LSCWC method and felt that they were better spellers after using it. They also believed that the LSCWC method was simple to implement and that they would use it again in the future when learning to spell. The students in the experimental group announced that the LSCWC method was fun and interesting to use. Moreover, they believed that the LSCWC method was superior to the traditional methods.

In summary, the results of this study proved that the LSCWC method was very effective in improving the spelling performance of Iranian junior students. The reasons for this progress can be attributed to factors such as providing motivation and individual attention while learning to spell, doing the LSCWC worksheets, taking online spelling tests, learning the spelling of the words effortlessly through the LSCWC GIF pictures by employing a multi-sensory approach, storing spelling patterns in the long-term memory of the students, and delegating the responsibility of learning to spell to the students. Furthermore, according to the findings of the attitudinal questionnaire, the majority of the participants liked the LSCWC method because it was simple, enjoyable, and exciting. Teenage students despised writing a word many times and preferred those methods that were more effective and practical than the traditional methods of spelling learning. In fact, it was a student-friendly method to improve their spelling.

6. Conclusion

The current study adds to the existing body of evidence indicating that the LSCWC method is an effective method for teaching students to spell words. All previous studies concluded that traditional spelling methods were inefficient and

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unsuccessful. As a result, teachers and practitioners should attempt to use novel strategies and methods. These studies highlighted the LSCWC method and its variations as an effective means of developing spelling skills. In fact, students spelled and remembered more words after using the LSCWC method than in traditional methods.

Based on the reviewed literature, spelling should be taught and practiced, especially at the elementary levels of English learning. The best option for teaching spelling is to apply a multi-sensory approach that includes visual, aural, tactile, and kinesthetic spelling components. Most students in the experimental group stated that they preferred the LSCWC method. They believed that the LSCWC method was enjoyable, interesting, and easy to use, and it helped them improve their spelling skills. The participants also said that the LSCWC method was better than the traditional methods and that they would use it again in the future.

It is advised that EFL teachers employ the LSCWC method to teach their students how to spell correctly, since it is flexible, enjoyable, and can provide immediate feedback. It also engages a variety of senses and may be done independently, in groups, or as a class. Teachers who still believe in teacher-centered language teaching methods may change their minds and adopt a student-centered method. The LSCWC method provides motivation and encouragement for those students who are not interested in spelling to improve their spelling performance. Using the LSCWC method gives poor spellers the chance to practice autonomy and confidence in spelling learning. By completing the LSCWC worksheets, weak spellers can observe and record their progress in spelling performance.

This research may stimulate the interest of teacher trainers and English language supervisors in developing training courses to encourage English teachers to use the LSCWC method when teaching spelling. Based on the results of this research, materials developers and syllabus designers are advised to redesign the English language curriculum by including new activities and strategies for teaching spelling. Furthermore, the ministry of education, with the help of this research, would find reasonable solutions to the challenges that Iranian students confront because of the difficulty, complexity, and irregularity of English spelling. This study also highlights the effectiveness of the LSCWC method in teaching spelling and inspires researchers to investigate the efficacy of similar methods further.

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In light of the findings of this study, the following recommendations for future research seem appropriate. In this study, 37 ninth-grade male students participated. It is necessary to do a study with a larger sample size, participants of diverse ages, and different genders. The goal of this study was to investigate the effect of the LSCWC method on students' spelling performance. Further studies can be conducted on other spelling methods, including Neuro-Linguistic Programming, Simultaneous Oral Spelling (SOS), the Old Way/New Way method, the Visual-Auditory-Kinesthetic-Tactile (VAKT) method, Fonetik Spelling, and so on. Furthermore, the above-mentioned methods might be compared to determine a superior spelling method, though, as previously indicated, there is no best method of teaching spelling. This study was carried out in a public junior high school. Future studies could be done in a variety of educational settings, such as high schools, private schools, and language schools, to name a few.

For selecting treatments to improve academic skills, teachers should make research-based interventions in terms of efficiency and effectiveness (Zannikos et al., 2018). Furthermore, interventions well-liked by teachers and students are more likely to be selected and implemented. The present results indicate that the LSCWC method was an effective intervention for rapidly reducing spelling problems in students with learning difficulties, resulting in faster learning gains. The LSCWC method is an easy intervention to apply because it requires little preparation and is highly simple to teach students. Finally, the findings highlight the necessity of considering learning speed when selecting treatments that are likely to provide the greatest benefits in the shortest length of time.

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[DOI: 10.48311/LRR.14.3.163]

References

Abdolrezapour, P., & Eslami-Rasekh, A. (2010). A cross-cultural study of perception of politeness by Iranian and American in request forms. *Pakistan Journal of Social Sciences*, *7*(2), 164–169. https://doi.org/10.3923/pjssci.2010.164.169

Al-Othman, N. (2003). Meeting the challenges to teaching the spelling system of English: Voices from the field in Kuwait. *Journal of Educational and Psychological Sciences*, *4*(3), 4–33. https://doi.org/10.12785/jeps/040308

Al-zuoud, K. M., & Kabilan, M. K. (2013). Investigating Jordanian EFL students' spelling errors at tertiary level. *International Journal of Linguistics*, *5*(3), 164–176. https://doi.org/10.5296/ijl.v5i3.3932

Alavimoghadam, B., Kheirabadi, R., Rahimi, & Alavi. (2015). *Prospect 3*. Iran School Books Publication Company.

Alipour, M., Salehuddin, K., & Stapa, S. H. (2019). Time of memorization and English spelling difficulties among Iranian EFL students in Malaysia. *Journal of Applied Linguistics and Applied Literature: Dynamics and Advances*, *7*(1), 105–118. https://doi.org/10.22049/JALDA.2019.26476.1125

Alipour, M., Salehuddin, K., & Stapa, S. H. (2021). Linguistic awareness and English spelling difficulties of Iranian EFL students in Malaysia. *Language, Linguistics, Literature*, *26*(4), 157–174. https://doi.org/10.17576/3L-2020-2604-12

Apel, K. (2011). What is orthographic knowledge? *Language, Speech, and Hearing Services in Schools*, *42*(4), 592–603. https://doi.org/10.1044/0161-1461(2011/10-0085)

Berninger, V. W., Abbott, R. D., Sylvester, L., Nolen, S. B., & Whitaker, D. (1995). Integrating low- and high-level skills in instructional protocols for writing disabilities. *Learning Disability Quarterly*, *18*(4), 293–309. https://doi.org/10.2307/1511235

Cates, G. L., Dunne, M., Erkfritz, K. N., Kivisto, A., Lee, N., & Wierzbicki, J. (2007). Differential effects of two spelling procedures on acquisition, maintenance and adaption to reading. *Journal of Behavioral Education*, *16*(1), 70–81. https://doi.org/10.1007/s10864-006-9019-5

Cook, V. J. (1997). L2 users and English spelling. *Journal of Multilingual and Multicultural Development*, *18*(6), 474–488. https://doi.org/10.1080/01434639

[DOR: 20.1001.1.23223081.1401.0.0.229.1]
[DOI: 10.48311/LRR.14.3.163]

708666335

Daffern, T., & Fleet, R. (2021). Investigating the efficacy of using error analysis data to inform explicit teaching of spelling. *Australian Journal of Learning Difficulties*, *26*(1), 67–88. https://doi.org/10.1080/19404158.2021.1881574

Daigle, D., Berthiaume, R., Costerg, A., Plisson, A., Ruberto, N., & Varin, J. (2020). Do all roads really lead to Rome? The case of spelling acquisition. *Reading and Writing*, *33*(2), 313–328. https://doi.org/10.1007/s11145-019-09965-4

Dörnyei, Z., & Taguchi, T. (2009). *Questionnaires in second language research: Construction, administration, and processing* (2nd ed.). Routledge.

Dymock, S., & Nicholson, T. (2017). To what extent does children's spelling improve as a result of learning words with the look, say, cover, write, check, fix strategy compared with phonological spelling strategies? *Australian Journal of Learning Difficulties*, *22*(2), 171–187. https://doi.org/10.1080/19404158.2017.1398766

Erion, J., Davenport, C., Rodax, N., Scholl, B., & Hardy, J. (2009). Cover-copy-compare and spelling: One versus three repetitions. *Journal of Behavioral Education*, *18*(4), 319–330. https://doi.org/10.1007/s10864-009-9095-4

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE.

Fisher, B., Cozens, M., & Greive, C. (2007). Look-say-cover-write-say-check and Old way / New way - mediational learning : A comparison of the effectiveness of two tutoring programs for children with persistent spelling difficulties. *Special Education Perspectives*, *16*(1), 19–38. http://research.avondale.edu.au/edu_papers/31

Fuchs, S., Kahn-Horwitz, J., & Katzir, T. (2019). Theory and reported practice in EFL literacy instruction: EFL teachers' perceptions about classroom practices. *Annals of Dyslexia*, *69*(1), 114–135. https://doi.org/https://doi.org/10.1007/s11881-018-00172-4

Fulk, B. M. (1996). The Effects of combined strategy and attribution training on LD adolescents' spelling performance. *Exceptionality*, *6*(1), 13–27. https://doi.org/10.1207/s15327035ex0601_2

Graham, S., & Santangelo, T. (2014). Does spelling instruction make students better spellers, readers, and writers? A meta-analytic review. *Reading and Writing*,

[DOR: 20.1001.1.23223081.1401.0.0.229.1]

[DOI: 10.48311/LRR.14.3.163]

27(9), 1703–1743. https://doi.org/10.1007/s11145-014-9517-0

Grant, K. (2002). *Supporting literacy: A guide for primary classroom assistants*. Routledge.

Haggan, M. (1993). Actual and self-perceived spelling accuracy in Kuwaiti EFL students: Some practical and theoretical implications. *TESL Canada Journal*, *10*(2), 55–70. https://doi.org/10.18806/tesl.v10i2.618

Harris, K. R., Friedlander, B. D., Saddler, B., Frizzelle, R., & Graham, S. (2005). Self-monitoring of attention versus self-monitoring of academic performance: Effects among students with ADHD in the general education classroom. *Journal of Special Education*, *39*(3), 145–156. https://doi.org/10.1177/00224669050390030201

Jaffré, J. P., & Fayol, M. (2013). *Orthography and literacy in French*. Lawrence Erlbaum.

Jaspers, K. E., Williams, R. L., Skinner, C. H., Cihak, D., McCallum, R. S., & Ciancio, D. J. (2012). How and to what extent do two cover, copy, and compare spelling interventions contribute to spelling, word recognition, and vocabulary development? *Journal of Behavioral Education*, *21*(1), 80–98. https://doi.org/10.1007/s10864-011-9137-6

Mahmoud El-Bassuony, J. (2014). Using self-monitoring strategy to improve English spelling accuracy and self- efficacy of primary school pupils with ADHD. *Journal of Curriculum and Instruction*, *206*(206), 73–130. https://doi.org/10.21608/mjat.2014.103742

Marinelli, C. V., Romani, C., Burani, C., & Zoccolotti, P. (2015). Spelling acquisition in English and Italian: A cross-linguistic study. *Frontiers in Psychology*, *6*. https://doi.org/10.3389/fpsyg.2015.01843

Meeks, L., Madelaine, A., & Stephenson, J. (2020). New teachers talk about their preparation to teach early literacy. *Australian Journal of Learning Difficulties*, *25*(2), 161–181. https://doi.org/https://doi.org/10.1080/19404158.2020.1792520

Mehrpour, S., & Ghayour, M. (2017). The effect of educational computerized games on learning English spelling among Iranian children. *Reading Matrix: An International Online Journal*, *17*(2), 165–178. https://www.learntechlib.org/p/191810/

[DOR: 20.1001.1.23223081.1401.0.0.229.1]

[DOI: 10.48311/LRR.14.3.163]

Mesmeh, T. Y. K. (2012). *The effect of the cover, copy and compare strategy on the ninth graders' acquisition and retention of spelling and their attitudes towards the strategy* (Publication No. 125226) [Master's thesis, The Islamic University of Gaza]. https://platform.almanhal.com/Reader/Thesis/125226

Mohammadi, D., & Radbakhsh, Y. (2017). Compare the effectiveness of direct training and multimedia education to improve six different types of dysgraphia. *Language Related Research, 8*(3), 265–290. https://doi.org/20.1001.1.23223081.1396.8.3.2.4

Moxam, C. (2020). The link between language and spelling: What speech-language pathologists and teachers need to know. *Language, Speech, and Hearing Services in Schools, 51*(4), 939–954. https://doi.org/10.1044/2020_LSHSS-19-00009

Nahari, A. A., & Alfadda, H. A. (2016). From memorising to visualising: The effect of using visualisation strategies to improve students' spelling skills. *English Language Teaching, 9*(6), 1–18. https://doi.org/10.5539/elt.v9n6p1

O'Sullivan, O., & Thomas, A. (2007). *Understanding spelling*. Routledge. https://doi.org/10.4324/9780203961612

Ott, P. (2007). *How to manage spelling successfully* (1st ed.). Routledge. https://doi.org/10.4324/9780203966075

Puliatte, A., & Ehri, L. C. (2018). Do 2nd and 3rd grade teachers' linguistic knowledge and instructional practices predict spelling gains in weaker spellers? *Reading and Writing, 31*(2), 239–266. https://doi.org/https://doi.org/10.1007/s11145-017-9783-8

Singh, N. N., & Beale, I. L. (Eds.). (1992). *Learning disabilities: Nature, theory, and treatment* (1st ed.). Springer.

Soodmand Afshar, H., & Bayat, M. (2021). An investigation into the impact of language learning strategy instruction on the less successful Iranian EFL learners' L2 achievement. *Language Related Research, 12*(3), 1–24. https://doi.org/https://doi.org/10.29252/LRR.12.3.1

Tseng, W. T., Dörnyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics, 27*(1), 78–102. https://doi.org/10.1093/applin/ami046

Westwood, P. (2005). *Spelling: Approaches to teaching and assessment*. Routledge.

[DOR: 20.1001.1.23223081.1401.0.0.229.1]

[DOI: 10.48311/LRR.14.3.163]

https://doi.org/10.4324/9781315065250

Westwood, P. (2008). *What teachers need to know about reading and writing difficulties*. ACER Press.

Westwood, P. (2014a). Spelling: Do the eyes have it? *Australian Journal of Learning Difficulties*, *20*(1), 3–13. https://doi.org/10.1080/19404158.2014.921632

Westwood, P. (2014b). *Teaching spelling: Exploring commonsense strategies and best practices* (1st ed.). Routledge. http://books.google.com/books?hl=en&lr=&id=tkvIAgAAQBAJ&pgis=1

Westwood, P. (2018). Learning to spell: Enduring theories, recent research and current issues. *Australian Journal of Learning Difficulties*, *23*(2), 137–152. https://doi.org/10.1080/19404158.2018.1524391

Williams, N. (2020). *Examining the efficacy of combining cover, copy, compare and performance feedback: A randomized controlled trial* (Publication No. 1287) [Doctoral dissertation, The University of Syracuse]. https://surface.syr.edu/etd/1287

Zakian, M. (2022). Using mobile applications for teaching English vocabulary to young language learners (YLLs): Investigating the short-and long-term impacts. *Language Related Research*, *13*(5), 541–564. https://doi.org/https://doi.org/10.52547/LRR.13.5.19

Zannikos, M. E., McCallum, E., Schmitt, A. J., & Pearson, K. E. (2018). A comparison of the taped spelling intervention and cover, copy, and compare for students with learning disabilities. *Journal of Behavioral Education*, *27*(3), 301–323. https://doi.org/10.1007/s10864-018-9293-z

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[DOR: 20.1001.1.23223081.1401.0.0.229.1]

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