

Facilitating Second Language Acquisition: Examining the Influence of Sequential Event Alignment (the structure building based) vs. shifting in the Reading Proficiency of upper intermediate Iranian EFL Learners

The current study was conducted to reveal the impact of sequential alignment and shifting strategies on the reading proficiency of Iranian English as a Foreign Language (EFL) learners. The research aims to contribute to the existing literature by shedding light on the effectiveness of these cognitive processes in language learning. It employs a mixed-methods approach, combining quantitative analysis of reading test scores with qualitative insights from learner interviews. Anticipated outcomes will inform EFL teaching practices and enhance our understanding of reading comprehension strategies. To this end, 130 students who were studying at the “IELTS Online Academy” language institute were selected. Then IELTS placement test was run to verify their level. The participants were divided into three groups with 30 members in each. As the instruments of the study, two tests were used; one reading pretest of IELTS that was run before the treatment and one posttest of reading IELTS that was run after the treatment at the end of the term. The result of paired-sample t-tests and one-way ANOVA tests revealed that both Sequential Alignment and shifting statistically significantly promoted learners’ reading comprehension ability. Besides, it was found that the Sequential Alignment group had significantly outscored the Shifting one. The findings provided empirical backing for the claims made by Sequential Alignment.

Keywords: *Sequential Alignment, Shifting the Events, EFL Teaching, reading proficiency, IELTS Tests .*

Introduction

Background

In today's complex field of language learning, it's essential to grasp how reading skills develop. Two key mechanisms involved are sequential alignment and shifting. This research explores how these processes affect the reading abilities of Iranian students learning English as a foreign language.

Reading proficiency is a crucial skill for EFL learners, affecting their academic success, communication abilities, and overall language competence. Understanding the cognitive mechanisms involved in reading—specifically sequential alignment and shifting—can lead to more effective instructional strategies.

Sequential alignment refers to the alignment of linguistic elements in a text—whether it be words, phrases, or sentences. **Shifting**, on the other hand, introduces an element of cognitive flexibility. It involves the reader’s capacity to shift attention, focus, or interpretation as they progress through a text.

1 Evidence for mapping and shifting processes can be found by looking at how
 2 textual cohesion and coherence affect processing and memory for texts. “Mapping
 3 occurs when incoming information is highly related to the part of the text that is
 4 being processed. Shifting occurs when incoming information does not closely
 5 relate to the material currently being processed. Shifting should produce two
 6 effects. First, because the process of shifting takes up processing resources,
 7 comprehenders should slow down at points in text where coherence breaks occur,
 8 because it takes more time for them to shift and build new structures than it does to
 9 map the same information onto an ongoing substructure. Second, because shifting
 10 results in the construction of a new substructure, information from previous
 11 portions of the text should become less available after shifting has occurred.”
 12 (Traxler, 2012. p.201).

13 Thus, comprehenders’ mental representation of a story, or any sets of events,
 14 consists of a foundation, in addition to an appropriate number of substructures.
 15 “The representation of story as a whole therefore, consists of several branching
 16 substructures; the branches terminate at the foundation” (Traxler, 2012. p.199).
 17 Stories revolve around characters, so it is not astonishing that comprehenders
 18 include a wide variety of protagonists in their mental models in stories. In a map
 19 task experimental paradigm, objects that are in a room that a main character is
 20 thinking about enjoy a higher degree of activation and accessibility than other
 21 objects. As a result, objects that are out of the focused character’s line of sight are
 22 less accessible to the comprehenders (Traxler, 2012).

23 However, there does appear to be another way that comprehenders organize
 24 the representation of stories in a narrative text by keeping track of protagonists’
 25 (main characters’) goals. “Narratives frequently have a complex goal structure,
 26 and so information about characters’ goals increases and decreases in accessibility
 27 as comprehenders process the narratives. Sometimes the goals are nested within
 28 the goals” (Traxler, 2012. p. 209). In a nutshell, comprehenders of a narrative text
 29 use general framework of cognitive model to comprehend stories. It is hoped to
 30 use the model to see how the information in a narrative text in the course of
 31 mapping vs. shifting the goals and actions of protagonists accessed.

32 33 *Statement of the Problem*

34
35 Despite extensive research on reading comprehension, the specific impact of
 36 sequential alignment and shifting has remained underexplored. This study touches
 37 this gap by examining their influence on Iranian EFL learners’ reading
 38 performance. When readers encounter a passage, their minds naturally seek
 39 coherence by connecting adjacent elements. The smooth flow of information relies
 40 on the reader’s ability to align these linguistic units sequentially. How does this
 41 alignment affect comprehension, retention, and overall reading proficiency? Can it
 42 serve as a scaffold for learners navigating complex texts?

43 On the other hand , Imagine a reader encountering a sentence with multiple
 44 layers of meaning—a shifting mindset allows them to explore various
 45 interpretations, adapt to context, and extract nuanced information. But how does

1 this mental agility impact reading comprehension? And can it be cultivated in EFL
2 learners?

3

4 *Purpose of the Study*

5

6 The current study explores the impact of Sequential Alignment vs. Shifting in
7 the Reading Proficiency of Iranian EFL Learners. There does appear to be a strong
8 correlation between sequential alignment Vs shifting the goals and actions of
9 protagonists with developing reading abilities, especially in the early stages of
10 learning process. In this study, “the sequential process connects incoming
11 information to the foundation as long as the incoming information is coherent with
12 the preceding information. However, if the incoming information is not related to
13 the preceding information, comprehenders undertake the process of shifting.
14 These two processes are essential in order to build a new substructure.” (Traxler,
15 2012, p.199). Our primary goal is to compare the effects of sequential alignment
16 and shifting strategies on reading proficiency. By doing so, we aim to provide
17 practical insights for EFL educators.

18

19 *Significance and Implications*

20

21 Understanding the dynamics of sequential alignment and shifting has
22 practical implications for language educators. By identifying effective instructional
23 strategies, we can empower EFL learners to navigate diverse texts with
24 confidence. Moreover, this research contributes to the broader field of cognitive
25 linguistics and pedagogy.

26 In summary, this study bridges theory and practice, shedding light on the
27 intricate dance between sequential alignment and shifting in the reading journey of
28 Iranian EFL learners. As we embark on this exploration, we invite readers to join
29 us in unraveling the threads that weave together comprehension, cognition, and
30 language acquisition.

31

32 *Research Questions*

33

34 Consistent with the background of the study above, the research problem
35 formulations are:

36

- 37 1. Do Sequential Event Alignment strategies significantly enhance the
38 reading proficiency of Iranian EFL learners?
- 39 2. Does event index-based shifting have any significant effect on developing
40 Iranian EFL learners’ reading ability?
- 41 3. Is there any significant difference between sequential event alignment and
42 shifting events in their effect on reading ability?

43

44

1 *Research Hypotheses*

2
3 Regarding the nature of the study, the questions that were posed, should be
4 quantitatively answered. Therefore, the following null hypotheses were
5 formulated:

- 6
7 1.NH1: Sequential Event Alignment strategies has no significant effect in
8 developing Iranian EFL learners' reading ability.
9 2.NH2: Event index-based shifting has no significant effect in developing
10 Iranian EFL learners' reading ability.
11 3.NH3: There is not any significant difference between Sequential Event
12 Alignment strategies and shifting in their effect on reading ability.

13
14 *(De) Limitations*

15
16 The present study has several limitations. The limitations of the study are
17 extrinsic qualities of the following study, as quantitative designs are approached.
18 To start with, barely has anyone heard of the field of study. Although, it is a theory
19 that is discussed in the field of psycholinguistics, even educated people do not
20 have sufficient information to assist me. Part of the reason is the title. In fact, the
21 title is a complex one, and even in the very first days of doing the research, I was
22 very confused. As there is little research, regarding the present title.

23
24 Limitations

25 The first limitation is the period of the study. The length of the study is short.
26 It takes a longer period than anticipated to familiarize students with reading
27 strategies in order to enhance their reading ability. And also to find and have
28 access to several pertinent reading topics related to the present title. Consequently,
29 the results would have been different, had the study been continued for longer
30 periods of time. Therefore, participants' gains in the quality and quantity of their
31 reading ability may have been greater and showed a strong pattern of
32 improvement.

33 The second limitation is the use of reading material. The reading schedule
34 was planned in advance as one of the supplementary sources for the outcome
35 analysis. Yet, I had to prepare my own reading records in advance. So, it took a
36 long time to prepare the materials with the same teaching value, and also to
37 prepare the material which used the same strategy, I am required to test.
38 Therefore, I had to make some adjustments to the reading material.

39 The greater weakness of the present study was the time management
40 regarding the larger and the younger groups. The younger the students are, the
41 more attention they needed. Especially, it is the case that happened to the less
42 proficient students. They frequently fell behind due to the time constraint.

43
44 Delimitations

45 The sample and the setting of the study were delimited to English institutes
46 and learners of the institutes, since the rationale behind the study was to shed some

1 light on English learning centers. For the sake of time management, the sample
2 population was delimited to adult learners who had passed a few courses in
3 English language institutes.

4 Also, the matter of time management was taken into consideration by having
5 a well-organized lesson plan and writing the time for each aim that I was about to
6 follow. For the sake of having a well-planned lesson plan, experts were discussed
7 to help and assist me reach the following goal.

10 **Literature Review**

12 *Reading Proficiency in EFL Contexts*

14 With the advent of technology, we are now standing at the threshold of a new
15 era. Society seriously demands learners who can find their way through the maze
16 of this ever-changing world. It also applies in the case of reading a story. When
17 comprehending a simple story, readers construct representations of the characters,
18 events, states, goals, and actions that are described in the story. Readers create, as
19 if were, a micro world of what is conveyed in the story. The linguistic structure of
20 the story can be regarded as a set of processing cues on how to construct such a
21 world. (Rolf, et al., 1998) Promoting reading ability has always been highlighted
22 in the literature.

23 To put it simply whatever your pupil knows, he/she should know not because
24 you have told him, but because he has grasped it himself. “Knowledge of
25 language learning strategies, on the other hand, is important to the learning
26 process. The term learning strategies, has been defined by many researchers.”
27 (Kabgani, Sajad. Zafarian, & Pardis, 2015)

28 Wenden and Rubin (1987) have defined learning strategies as “ any set of
29 operations , steps, plans, routines used by the learner to facilitate the obtaining,
30 storage, retrieval and the use of information” (Rubin &Wenden; 1987, p.19).
31 Hence, as Oxford (1990) mentioned, many different strategies can be applied by
32 comprehenders and language learners. Metacognitive techniques for organizing ,
33 focusing and evaluation of one’s own learning; Affecting strategies for handling
34 emotions or attitudes; social strategies for cooperating with others; cognitive
35 strategies for linking new information with existing schemata and for analyzing
36 and classifying it: Memory strategies for entering new information into memory
37 storage and for retrieving it when needed; and comprehension strategies such as
38 guessing or using gestures to overcome deficiencies and gaps in one’s current
39 language knowledge (Kabgani, et al., 2015).

40 A wealth of empirically validated cognitive research has demonstrated key
41 features that the mind uses to store and retrieve events in short term memory when
42 experiencing a story (Kives, et al., 2015). This study has taken into consideration
43 the same orientation, attempting to investigate the audiences’ understanding and
44 attention as they experience a story.

45
46

1 *Theoretical Framework*

2
3 We introduce the theoretical framework that underpins our study. Drawing
4 from cognitive psychology and language acquisition theories, meanwhile we
5 discuss how sequential alignment and shifting align with existing models of
6 reading comprehension.

7 Narratologists categorize a narrative into story (people, places, things, and
8 events) and discourse (how the story is told), (Kives et al., 2015). Historically,
9 computational models of narrative have focused on presentation of the diverse
10 structural properties of narratives (as cited in Kives, et al., 2015). However,
11 authors of many books, intentionally design stories to affect their audience in
12 specific ways. (Bordwell, 1989; Lard, 1989)

13 According to (Szilas, 2003, as cited in Kives, et al., 2015) a model of
14 narrative must go beyond simple story structure and account for how the
15 experience receives the narrative. A decade prior to the coining of the terms
16 mental model and situational model, Bransford, Bazlay, and Franks 2012 (as cited
17 in Kives et al., 2015) had demonstrated empirically that the nature of the described
18 situation can have a powerful effect on the readers' memory (Kives, et al., 2015).

19 It is not surprising that Bransford et al. (1972) drew the conclusion that
20 "sentences are information which people can use to construct semantic description
21 of situation" (Traxler, 2012. p.144). Over the past 15 years, many researchers
22 have argued that the construction of a coherent situation model is tantamount to
23 the successful comprehension of a text. (Traxler, 2012).

24 The event Indexing model is among situation models. It is a cognitive model
25 of online narrative comprehension. Cognitive psychologists studying narrative
26 comprehension define a situation model as an integrated mental representation of a
27 particular situation in the story world. Situation models are formed by a reader
28 from an amalgamation of information explicitly stated in a narrative and inferred
29 by the reader (Kives, et al., 2015).

30 The Event indexing model posits that as we perceive a narrative, we
31 discretize the narrative into events, or chunks of narratively important action
32 (Zwaan, et al., 1995). Each event is indexed by the reader relative to a number of
33 key factors or dimensions including;

- 34
35
- Time index: the time frame in which the events occur.
 - Space index: the space in which the event takes place.
 - Protagonist index: whether or not the event involves the protagonist.
 - Casual index: the event's causal status with regards to previous events.
 - Intention index: the event's relatedness to the intentions of a character
39 (Kives, et al., 2015).
- 40
41

42 The event indexing model, as proposed by Zwaan, Langston, and Graesser,
43 suggests that events form the foundation of our understanding of situations. As we
44 read text, we create mental representations of these events based on five
45 dimensions: time, characters, causation, motivation, and location. The more
46 similarities between an event and our existing mental model, the easier it is to

1 integrate it. These mental models, including the event indexing model, encompass
 2 information about entities (characters, objects) and their characteristics (both
 3 physical and mental). These entities represent real-world elements and their
 4 relationships with each other in a situation. These entities are represented by
 5 tokens in a situation model. Typically, the aforementioned properties are most
 6 relevant for understanding a situation (Zwaan, 1995).

7 8 *Identifying Gaps*

9
10 Although there's an abundance of studies on reading strategies, limited
 11 research focuses on contrasting sequential alignment and shifting. This paper
 12 highlights the gaps in existing literature and stresses the importance of conducting
 13 empirical studies to delve deeper into these techniques.

14 15 16 **Methodology**

17 18 *Participants*

19
20 The study included a sample population of 130 female EFL learners aged
 21 between 24 and 40 years old ($M = 23.54$, $SD = 6.63$). These learners were
 22 attending a private English language institute called 'IELTS Online Academy' in
 23 Tehran, Iran. The institute was chosen due to its diverse levels and student age
 24 ranges. All participants were selected from those studying the first level of the
 25 upper intermediate course. The learners were enrolled in a course aimed at
 26 enhancing speaking, reading, writing, and listening skills, totaling 20 learning
 27 hours. In addition to their course book, the Upper Intermediate book of cutting
 28 edge series, active reading, was utilized for the sake of this study. Classes were
 29 conducted two days a week, with each session lasting 60 minutes.

30 31 *Research Design*

32
33 We choose a quasi-experimental design, allowing us to compare learners'
 34 performance across different reading tasks. The study's design is a quasi-
 35 experimental, pretest, and posttest design.

36 The study did not involve the manipulation of variables. Quantitative
 37 procedures such as questionnaires, reading comprehension tests, and gap-filling
 38 questions were used to evaluate learners' reading abilities. The study focused on
 39 two independent variables, which were the sequential alignment and shifting. The
 40 dependent variable was the students' reading development according to the
 41 sequential model. Initially, pretests (O1, O3, and O5) were conducted, followed
 42 by the application of experimental treatments (X1, X2), and finally, post-tests were
 43 administered to the groups (O2, O4, and O6) at the conclusion of the treatment
 44 period. The control group underwent a regular process (C) and did not receive any
 45 specific treatments, instead working on exercises in their books.

46

1 *Variables*

2
3 We define and operationalize the variables of interest: sequential alignment
4 and shifting. In the realm of second language acquisition reading proficiency:

- 5
6 1. Shifting: This pertains to the cognitive process in which a reader moves
7 between languages while understanding a text. Practically, it can be gauged
8 by examining the frequency and accuracy of language switches during
9 reading activities, or by studying eye movements to monitor changes in
10 focus between languages.
11 2. Sequential alignment: This entails correlating the text in the second
12 language with the reader's grasp of the content in the first language.
13 Practically, it can be evaluated by assessing how effectively a reader
14 understands the text in the second language in comparison to their
15 understanding in the first language, utilizing methods like comprehension
16 questions or retelling tasks.

17 18 *Instruments*

19
20 Our data collection tools include standardized reading tests and self-report
21 surveys to assess learners' strategy preferences. The researcher utilized a
22 quantitative approach and specific instruments to address the research questions,
23 aiming to enhance the validity and reliability of the results. The data collection
24 involved the administration of The IELTS General Tests 2023 version, a respected
25 exam by The British Council to assess the English proficiency level of the
26 participants. The IELTS General tests consisted of four sections :listening,
27 reading, writing , and speaking. In this study, the IELTS test served a dual purpose
28 - to ensure the participants had similar proficiency levels before the treatment and
29 to gather data on their reading comprehension abilities in the pretest. Specifically,
30 the reading section, where participants answered 40 questions, was used to
31 evaluate the reading comprehension performance of the learners in the pretest.

32 33 *Procedures*

34
35 This study attempts to assess the reading ability of EFL learners, based on
36 sequential alignment and text shifting events. For this purpose, a sample of 90 EFL
37 learners, all English learners with upper intermediate proficiency at IELTS online
38 Language Academy, was selected. Participants attended six intact upper
39 intermediate levels . The sample PET test was distributed to the learners and took
40 participants a total of 60 minutes to complete. The reading section consists of three
41 parts and 40 questions, distributed to the participants. After analyzing the results of
42 these tests ($M = 63.55$, $SD = 16.75$), the researcher selected 15 students whose
43 scores fell within one standard deviation of each student's mean score to
44 participate in this study. Each layer was then randomly assigned to a mapping,
45 migration, or control group. All lessons were taught by the researcher. After some
46 time, participants from all three groups were post-tested. Another version of the

1 IELTS reading test was given to participants, which included 40 questions and 3
2 sections. Both groups must answer questions within 60 minutes.

3 Two experimental groups read the text throughout the semester. Read the
4 texts containing the sequential alignment for the first group built upon the
5 elements of the previously fired event button. 10 readings selected from the book
6 titled “active reading”. Participants are expected to answer reading comprehension
7 questions. They also work in groups and describe events in the text, based on an
8 event indexing model.

9 Texts containing changes to the events of the story were distributed to another
10 group. The information in the texts contains changes that indicate a discontinuity
11 between the previously triggered event and the new information. The control
12 group received a placebo and participants were assessed by asking them to retell
13 stories and take a reading comprehension test. Additionally, fill-in-the-blank texts
14 were arranged for both groups.

15 The researcher asked participants in both the sequential alignment and the
16 shifting group to continue the story. Additionally, the speed at which participants
17 completed the task was also recorded.

18

- 19 1. Students in both groups were given a word related to the characters that
20 they had to complete using information they had in mind about each
21 character in the text.
- 22 2. Matching task: Students are given two rows of sentences; they must match,
23 based on the information in the tests.
- 24 3. Sentence completion task: Students in the map and move group were given
25 incomplete sentences and had to fill in the blanks.
- 26 4. Clustering task: Students read a list of verbs and place the verbs into a set of
27 boxes. Students are asked to put two verbs in the same box if they think
28 they go together.

29

30 The control group received no treatment. Students regularly do speaking and
31 listening exercises in their books. They did not receive any messages. Students do
32 some of the listening and speaking exercises found in the cutting edge course
33 book.

34 Students in the experimental group received two types of treatment
35 depending on their group: the sequential alignment or transforming story events.

36 Students in the sequential alignment group got access to texts from active
37 reading. Parts of the text containing a map of events were tested. Some tasks used
38 that fit this category are:

39

- 40 1. Students in this group are given reading comprehension questions about
41 each character as well as the events in the story. They must choose the
42 correct answer.
- 43 2. Matching task: Students are given two rows of sentences; they must match,
44 based on the information in the tests.
- 45 3. Sentence completion task: Students in the mapping group were given
46 incomplete sentences and they had to fill in the blanks.

- 1 4. Grouping task: Students read the list of verbs and put the verbs into the
2 empty boxes. Students are asked to put two verbs in the same box if they
3 think they go together. For example: go out and cry.
4

5 *Data Analysis*

6
7 To address the initial research inquiry and determine the impact of sequential
8 alignment on the enhancement of learners' reading skills, a paired-sample t-test
9 was conducted. This statistical analysis aimed to compare the performance of
10 learners in the mapping group before and after the intervention.

11 Subsequently, in order to address the second research question regarding the
12 influence of shifting on learners' reading proficiency, another paired-sample t-test
13 was carried out. This analysis involved comparing the performance of learners in
14 the shifting group before and after the intervention. Lastly, to investigate whether
15 sequential alignment was more effective than shifting in enhancing learners'
16 reading skills, a one-way Analysis of Variance (ANOVA) was employed.

17 In this study, ANOVA was used to analyze the data and compare the
18 effectiveness of different instructional approaches. Additionally, descriptive
19 statistics were computed for the sample placement tests to provide a comprehensive
20 overview of the results.
21

22 *Ethical Considerations*

23
24 As scholars, we acknowledge the significance of ethical behavior in our
25 research. Here are some fundamental ethical considerations:
26

27 Consent

28 Consent: Before gathering data, we had secure informed consent from all
29 participants. We clearly outlined the study's purpose, their rights, and the voluntary
30 nature of their involvement. Participants had the option to withdraw at any point
31 without facing any repercussions.
32

33 Privacy

34 Privacy: We guaranteed the confidentiality of participants' identities. All data
35 was anonymized, and any identifying details was eliminated during analysis.
36 Pseudonyms were utilized when presenting our findings.
37

38 Avoiding Harm

39 Avoiding Harm: We understand that research involvement should not result in
40 harm to participants. We mitigated any potential distress by steering clear of
41 sensitive or triggering content during interviews and assessments.
42

43 Openness

44 Openness: We were transparent about our research methodologies, objectives,
45 and possible biases. Any conflicts of interest was openly disclosed.
46

1 Cultural Awareness

2 Cultural Awareness: Considering the diverse backgrounds of our participants,
3 we approached the study with cultural sensitivity. We honored cultural norms and
4 practices, ensuring that our research does not disrespect or harm any particular
5 group.

8 **Results**

10 The study aimed to investigate the impact of event sequential alignment and
11 shifting on the development of learners' reading ability by posing three research
12 questions. Additionally, it explored whether sequential alignment was more
13 effective than shifting in enhancing reading skills.

14 The results of the one-way ANOVA yielded no significant difference in mean
15 scores, $F(2, 87) = .175$, $p = .84$, indicating that the participants in all groups were
16 homogeneous in terms of the reading comprehension skill prior to the treatment.

17 A statistically significant increase could be detected in the Mapping group (M
18 $= 16.43$, $SD = 1.30$) when pretest scores were compared against the ones obtained
19 on the posttest, $t(29) = 68.98$, $p = .00$. Thus, it was concluded that the sequential
20 alignment statistically significantly increased learners' reading comprehension
21 ability. Thus, the first null hypothesis was rejected.

22 A statistically significant increase could be detected in the Shifting group (M
23 $= 7.96$, $SD = 1.21$) when pretest scores were compared against the ones obtained
24 on the posttest, $t(29) = 35.84$, $p = .00$. Thus, it was concluded that shifting
25 statistically significantly increased learners' reading comprehension ability.
26 Therefore, the second null hypothesis was rejected.

27
28 **Table 1.** *Mean and Standard Deviation for all the Groups in the Posttest*

Group	N	Mean	Standard Deviation
Sequential alignment	30	28.70	2.64
Shifting	30	20.46	2.16
Control	30	13.76	1.95
Total	90	17.97	3.75

29
30 As shown in Table 1, in the posttest, the mean score gained by the two
31 experimental groups were higher than that of the control group. Besides, the
32 sequential alignment group mean score was higher than that of the Shifting group.
33 To find out whether the difference between the mapping ($M = 28.70$, $SD = 2.64$)
34 and shifting ($M = 20.46$, $SD = 2.16$), and control ($M = 13.76$, $SD = 1.95$) groups
35 were statistically meaningful, the researcher ran a one-way ANOVA to compare
36 the mean scores in the posttest. The results of the one-way ANOVA in the posttest
37 yielded a significant difference in mean scores, $F(2, 87) = 325.11$, $p = .00$. A post

hoc Scheffé's test was run to determine where the differences existed. The difference between the mapping ($M = 16.43$, $SD = 1.30$) and shifting ($M = 7.96$, $SD = 1.21$) groups was detected to be statistically significant. Given the results of the two one-way ANOVA tests run to compare the mean scores in the posttest and the gains, it was concluded that the sequential alignment was significantly more effective than event index based shifting in developing Iranian EFL learners' reading ability. Thus, the third null hypothesis was rejected.

Conclusion and Discussion

The primary objective of the current study was to examine whether the implementation of the sequential alignment and shifting had a notable impact on the development of reading ability among learners. Furthermore, the present study aimed to investigate whether sequential alignment was significantly more effective than event index based shifting in enhancing learners' reading ability. The findings derived from paired-sample t-tests and one-way ANOVA tests indicated that both sequential alignment and shifting contributed significantly to the improvement of learners' reading comprehension skills. Additionally, it was discovered that the sequential alignment group achieved significantly higher scores than the Shifting group. The results of the current investigation also mirror those suggesting the influence of the characteristics of the depicted circumstance on the recollection of the readers (Bransford et al., 1972; Kives, et al., 2015). Similar to those researches, the present study emphasized the significance of occurrences within a storyline in facilitating the understanding of the narrative for the readers.

On the practical plane, the current study can have implications for both classroom instructors and material and test developers. The results with regard to the effect of mapping indicates that either presenting in new information in a text in a way that it elaborates on the elements of a previously activated event node can facilitate comprehension. Material developers should also be motivated to devise texts in a way that events cohere with previously mentioned ones. Temporal and spatial common indexes can be incorporated in texts to strengthen the links between the nodes in the network of nodes representing situations in the long-term memory. This, in turn, can help readers comprehend and maintain the information better in their long-term memory.

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