

# Focusing on the Comprehension Challenge of Different Passive Structure Types by EFL Learners

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## Abstract

Much of the research on the comprehension of passive sentences has targeted healthy adults, L1 acquirers, and people with aphasia. However, a topic that lacks evidence is the comprehension challenge of EFL learners facing different passive structure types. Consequently, this study investigated the comprehension difficulty of different passive structures faced by 186 intermediate EFL learners. The participants' task was to read a sentence and choose a corresponding answer in a multiple-choice format via a software application designed for this study. The answers were analyzed in terms of the comprehension accuracy and the reaction time. Compared with the passive sentences, active sentences took less time from the regarding their comprehension, and for which, participants had a higher success rate. The results suggested that different passive verb types (i.e., regular/irregular, action/state, double-object/single-object, negative/affirmative, and question/statement) imposed different degrees of comprehension challenge to EFL learners; passives with regular verbs (PR) were the least challenging and passives with double-object verbs (PDO) were the most demanding structures. It was also revealed that the participants' comprehension of different passive structures was significantly different based on their reaction times. The study's findings may be of insight for EFL instructors and materials developers to possibly invest more time for the more challenging passive structures.

**Keywords:** Sentence comprehension, Passive structures, Comprehension difficulty, Intermediate EFL learners

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## INTRODUCTION

There is controversy over the question of how sentences are processed, specifically about the mental processes involved in generating and comprehending sentences (e.g., Ferreira, 2003; Hoeks, Vonk & Schriefers, 2002). The processing and comprehension of passive sentences has been a concern for linguists for more than 60 years (from transformational grammarians to the present) by asking if the passive structures are more difficult to comprehend than the active ones (e.g., Ambridge, Bidgood, Pine, Rowland & Freudenthal, 2016; Paolazzi, Grillo, Alexiadou & Santi, 2019; Slobin, 1966). Much of the research on language comprehension has focused on the resolution of syntactic ambiguities, and most studies have employed garden-path sentences (i.e., sentences which need more than one attempt to be comprehended and depict the mental preferences in the comprehension process, Marefat & Arabmofrad, 2008) to determine the mental preferences and to assess the use of non-syntactic sources (of) information; however, a topic that has been neglected is how syntactically challenging but unambiguous sentences are processed, including the passives and the object-clefts sentences that require thematic roles to be assigned in an atypical order (Ferreira, 2003).

Few studies of sentence comprehension actually include serious measures of the speakers' interpretations of sentences (Ferreira, 2003). Although researchers assume that a complex sentence is assigned the semantic interpretation supported by the syntactic frame (Frazier & Clifton, 1996), little direct evidence for that assumption has actually been presented. However, several studies have brought evidence that interpretations can be inconsistent with syntactic form (Ferreira, Bailey & Ferraro, 2002; Sanford, 2002).

Syntactic and sentence processing may be crucial in comprehension of texts and even controversial especially in an EFL context like Iran. Throughout the last few decades, cognitive variations in learning and

teaching a foreign language have become increasingly significant (Khodadady, Alavi & Khaghaninejad, 2012; Khatib & Jannati, 2015). Traditionally, the efficiency of L2 sentence processing was measured by comparing L2 learners' processes with those of the native speakers (Roberts, 2012). Moreover, much of the literature on the representation and processing of passives includes native adults (e.g., Ferreira, 2003), people with aphasia (e.g., Grodzinsky, 1990), comprehension in ageing and Alzheimer's problems (e.g., Van Boxtel & Lawyer, 2021), and children acquiring their first language (e.g., Maratsos, Fox, Becher & Chalkley, 1985), while there have been few experiments done on EFL learners regarding the comprehension of passive structures. Although the current theories of foreign language learning do not agree upon specifics, all take into account the role of comprehension in the processing, storage, and recall of linguistic input and its impact on the development of the learner's foreign language (Tajeddin, 2013).

There is an agreement that syntactic complexity influences sentence processing (e.g., Frazier & Clifton, 1996), and that there are some syntactic structures which can make processing more difficult and even slower (Warren, 2013). Sentence comprehension processes involve more than combining the meaning of individual words in a sensible fashion, and the type of syntactic structure facilitates sentence processing (Warren, 2013). For active versus passive structures, the assumption is that syntactic processing must be done properly so that a correct interpretation for the sentence can be computed (Ferreira, 2003). Theories of cognitive processing predict that the active voice requires less processing and therefore should be easier than the passive one (Roberts, 2012). That is to say, active sentences will result in fewer errors and require less cognitive processing time than the passive sentences.

In contradiction to this tenet, Paolazzi et al. (2019) declare that much of literature on comparison of active and passive structures use offline tasks that require a judgment of a sentence interpretation (e.g., Ferreira, 2003; Street & Dąbrowska, 2010); However, studies that use online tasks

to measure moment-to-moment processing of sentences (e.g., Traxler, Corina, Morford, Hafer & Hoversten, 2014) seem inconsistent with the general belief that passives are more complex than the actives (Paolazzi et al., 2019; Paolazzi et al., 2022). The present study aimed to compare the comprehension difficulty of different types of passive sentences faced by adult intermediate EFL learners and attempted to answer the following questions:

1. Is there any difference in comprehension difficulty of different passive structures (i.e., passives with regular/irregular, state/action, single-object/double-object verbs, passive questions/statements, and passive affirmative/negative sentences) in terms of the comprehension accuracy and/or the comprehension speed?
2. How is the hierarchy of comprehension difficulty of different passive structures for the intermediate EFL learners?

## LITERATURE REVIEW

An area of complexity regarding the syntactic analysis of a sentence is that grammar allows constituents to move from their canonical positions (Ferreira & Cokal, 2016). One of the resulted structures is a passive sentence, in which the theme of an action is also the subject of the sentence, in contrast to the general preference to align agency and subjecthood (Jackendoff, 1990).

For decades, literature in psycholinguistics has focused on the measures of processing that provide difficulty estimates on a word-by-word basis; However, these psycholinguistic measures have not been tested on sentence level tasks (Howcroft & Demberg, 2017). The first attempt to evaluate sentence comprehension systematically was reported by Salomon (1914). He provided a very exhaustive study of a single case whose first language was German. In addition to the tests of single word processing (including the classification of words into different parts of

speech), he included judgments of syntactic acceptability, comprehension of active and passive sentences, and the learner's reactions to *agrammatical* utterances.

Some studies with measures of how long participants take to match sentences with pictures found evidence that passive sentences are more difficult to process than active sentences (e.g., Just & Carpenter, 1971). Another experiment on derivational complexity was that of Miller and McKean (1964) in which participants were given examples of transformationally related sentences. They found that the participants' reaction-time increased in accordance with the number and complexity of the transformations involved. In another study, Savin and Perchonock (1965) found that sentences requiring passive and negative transformations took a larger part of the capacity of immediate memory than do the identical sentences lacking these features.

Maratsos and Abramovitch (1975) studied the comprehension of full and reduced passive structures using eight action verbs by 40 children aged 3-4 years. The results indicated that full and reduced passive structures were learned concurrently. In the same vein, Sinclair, Mills and Guarente (1997) indicated that the comprehension of passive sentences was not complete before 6 years, and comprehension of the reversible sentences was more difficult than the irreversible ones.

Dabrowska and Street (2006) studied the individual differences in comprehension of passive sentences by native and non-native English speakers. They tested sentence comprehension using a modified version of a task developed by Ferreira (2003), in which participants were asked to identify the agent in four types of sentences: Plausible active, implausible active, plausible passive, and implausible passive. Their results showed that both of the highly educated participants and the less-educated non-native group performed satisfactorily in all conditions. The less-educated native participants had a better performance in comprehending plausible sentences but had difficulty with implausible actives (65% correct) and especially with implausible passives (36%

correct). These results suggested considerable (possibly education-related) differences in the level of attainment among native speakers. Dabrowska and Street (2006) suggested that processing implausible non-canonical sentences depended to some extent on meta-linguistic skills, which may be enhanced by explicit L2 instruction. In another research, Pandelaere and Dewitte (2006) depicted that questions were often misremembered more than the statements. Their findings were consistent with the idea that in the processing a sentence, the content of the sentence is represented similar to a statement underlying that sentence.

From the point of view of the verbs' frequency, Dittmar, Abbot-Smith, Lieven and Tomasello (2014) investigated how German pre-school children comprehend active and passive sentences. They provided support for the fact that when familiar verbs become entrenched in passive structures, they are more difficult to understand than would novel verbs. For 2.5 year-olds, familiar verbs entrenched in passive sentences were more difficult to understand.

Recently Horne, Zahn, Najera, and Randi (2022) investigated the relation between phonological and semantic working memory (WM) and the comprehension of transitive and dative active and passive sentences. On the relative clause comprehension task, consistent with prior results, they found that semantic WM, but not phonological WM, predicted comprehension of object relative clause sentences and relative clause sentences with a passive construction.

Passive structures have also been studied in languages other than English. For instance, in a study on comprehension of active and passive sentences in the Iranian EFL context (Mohammadi, Kazemi-Dastjerdi, Minaei & Jenabi, 2016), five active and four passive sentences were uttered for 48 to 71-months children, and the children were asked to look at one of the four pictures in front of them and choose the correct one. Their results showed that there was a significant difference between the comprehension of active sentences by the children in both age groups; children aged between 60 to 71 months scored higher while there were no

significant differences between the comprehensions of passive sentences between the two age groups. Furthermore, there were no significant differences between the two genders in comprehension of active or passive sentences.

## **METHOD**

### **Participants**

For this study, the initial pool of 186 male and female Iranian EFL learners whose native language was Persian were recruited through a non-random convenience sampling technique from the B.A. students majoring TEFL, English Translation, and English Language and Literature. The participants had 3 to 6 terms of academic training and they normally had EFL training in language institutes before and during their academic training. To assess the proficiency level of the participants, the McMillan Placement Test (MPT) was employed. MPT is a straightforward quick diagnostic test designed to determine the participant's English proficiency level (Najafy, Shojaee & Khaghaninejad, 2018). Based on the results of the test, 204 intermediate learners of both genders were chosen for achieving the study's objectives. Their age range was between 18 and 25.

### **Instrumentation**

For the proficiency level placement, the McMillan Placement Test (MPT) was conducted. It is a universally-employed test by which different levels of proficiency ranging from complete beginner to advanced can be determined. MPT consists of 50 grammar, vocabulary, and reading comprehension test items; based on the guidelines, the participants with a score range of 0 to 15 are considered to be beginners, the score range of 25 to 45 is regarded to be intermediate, and those with higher scores than 45 are judged to be advanced EFL learners. The test enjoys an acceptable reliability value of 0.89 (Warren, 2013).



To evaluate the comprehension of active and the intended passive structures, 100 multiple choice test items were generated. Twenty items were active, and there were 18 passive test items with specific characteristics to satisfy the study's needs. The length of the sentences was consistent (9 to 12 words) for all structures, and their frequencies were attested by The Ultimate Word List - ENGLISH: 10,000 Most Commonly Used Words (Levin, 2010). Checking the comprehension of the sentences was done by focusing on the number of correct answers to the multiple-choice test items, and for assessing the comprehension difficulty of the sentences, the time spent for the correct reaction to the test items was taken into account using an online test. Before the experiment commencement, the test was piloted to a group of intermediate EFL learners, and 14 items were omitted or revised. The reliability and validity of the test were satisfactory ( $r = 0.91$ ).

For the item construction, IELTS 15-Academic (2020) was consulted. IELTS 15-Academic is published by Cambridge University Press and consists of authentic sample tests and practices within the four speaking, listening, reading, and writing components. This source was chosen because IELTS test developers are from different countries (and cultures) and construct IELTS test items impartially and fairly with regard to all test takers (IELTS official website; [ielts.org](http://ielts.org)).

Passive structures included passives with regular verbs (PR), passives with irregular verbs (PI), passive affirmative sentences (PAF), passive negative sentences (PN), passive questions (PQ), passive statements (PST), passive with state verbs (PSV), passive with action verbs (PAV), passive with double-object verbs (PDO), and passive with single-object verbs (PSO). For each passive type, eight test items were constructed. As presented in Table 1, the sentences were comprised of a more or less similar number of words which were checked in terms of their frequency.

**Table 1:** Structure Types and Example of the Experimental Items

Sentence Structure	Sample Item
active regular verbs (AR)	Susan will bake two dozen cookies for the bake sale.
active irregular verbs (AI)	Her parents forgave her for marrying without their permission.
passive regular verbs (PR)	The information was easily transferred to the new database.
passive irregular verbs (PI)	His pioneering work in the field was largely forgotten until late 1940s.
Passive statement (PST)	Her money was transferred to his account by the bank.
passive question (PQ)	Why was he selected as the class representative so unanimously?
passive with state verbs (PSV)	Everyone is interested to hear Mike's views on this subject.
passive with action verbs (PAV)	A wide range of organic products is sold by most supermarkets.
Passive Affirmative (PAF)	I was asked to attend the meeting on Thursday in the Hall.
passive negative (PN)	The newly published book is not sold due to the printing problems.
passive with double-object verbs (PDO)	They were shown a new story by the next episode.
passive with single-object verbs (PSO)	A dozen of books were bought by our new teacher.

## Data Collection Procedure

A set of 100 short sentences were presented to 186 intermediate participants via an online sentence comprehension test. A software application (Com-Chron) was designed and employed to determine the accuracy and reaction time of participants' comprehension. Com-Chron provided the learners with the experimental sentences and illustrated the comprehension accuracy and speed of each EFL learner based on his/her performance while seeing the target sentences on the computer screen. Each sentence was shown only for one minute and was followed by four options; the participants needed to choose the most relevant option for the sentence in terms of meaning. They could not move back to previous items to revise their answers. For the unanswered items which were considered false, the maximum time (one

minute) was considered in the reaction time data. The results for each participant were presented individually by an Excel output in which their total scores and the time spent on each item were provided.

## RESULTS AND DISCUSSION

### Results

In this study, data for the comprehension of five pairs of passive structures and a set of active sentences were collected in terms of the participants' scores (comprehension accuracy) and their reaction times (comprehension speed). Therefore, it became possible to compare firstly, the comprehension of active and passive structures and secondly, the comprehension of different passive structures at two levels of accuracy and speed.

Firstly, the participants' perception of English active and passive sentences was compared on two levels of their scores (comprehension accuracy) and their reaction-times (comprehension speed) through paired-samples t-tests. Tables 2 and 3 depict that the participants' performance was generally higher for the active sentences than for the passives; the comprehension of active structures was significantly more accurate and faster.

**Table 2:** Mean Accuracy of Comprehending Passive and Active Sentences

	Mean difference	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)
Active scores (70.61)					
Passive scores (68.26)	2.35	22.01	.88	2.64	.008

**Table 3:** Mean Reaction Times of Comprehension Passive and Active Sentences

	Mean difference	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)
Active RTs (27.70)					
Passive RTs (28.98)	-1.28	9.47	.38	-3.34	.001

As Table 3 shows, the reaction times (RTs) for active items were relatively lower ( $27.70 \pm 11.10$  for actives and  $28.98 \pm 11.66$  for passives). This implied that passive sentences were significantly more difficult to comprehend, and they needed more time to be processed ( $p = .001$ ).

Regarding the first research question, the performance of the participants on comprehending passive sentences with regular verbs (PR) and passive sentences with irregular verbs (PI) was compared. Tables 4 and 5 show that although participants had a lower accuracy ( $72.04 \pm 18.05$ ) and higher reaction time ( $26.66 \pm 10.18$  seconds) for PIs, the difference was not statistically significant for both the comprehension accuracy and the comprehension speed.

The comprehension accuracy and speed of participants were also compared for the passive affirmative (PAF) and the passive negative sentences (PN). Although participants had relatively lower scores for PNs ( $63.66 \pm 23.90$  for negatives and  $66.88 \pm 23.90$  for affirmatives;  $p = .056$ ), PNs had a lower reaction time ( $28.11 \pm 9.96$  seconds for negatives and  $29.46 \pm 9.96$  seconds for affirmative items;  $p = .055$ ). Considering the  $p$  values, it can be claimed that although PNs were more difficult to comprehend, they took less reaction-time by the participants. However, neither of these differences was statistically significant. Moreover, the participants' performance for comprehending the passive questions (PQ) and the passive statements (PST) was assessed. In terms of the comprehension accuracy, no statistically significant difference was found ( $p = .143$ ) while a significant difference was revealed comparing PQs and PSTs in terms of the comprehension speed (the mean of  $28.08 \pm 10.71$  seconds for statements, in contrast to the mean of  $29.46 \pm 10.08$  seconds for the passive questions). Considering the  $p$  value, the comprehension of PSTs happened remarkably faster than the PQs ( $p = .021$ ).

The participants' scores and their reaction times for comprehending passive sentences with action verbs (PAV) and passive sentences with state verbs (PSV) were also contrasted. A lower mean score was obtained for PSVs in comparison with PAVs ( $62.29 \pm 22.09$  vs.  $66.66 \pm 24.70$ ).

Indeed, PAVs were easier to comprehend, and this difference was statistically significant ( $p = .001$ ); this was confirmed by a significant difference found in the reaction times ( $28.81 \pm 11.29$  seconds for PSV and  $26.90 \pm 11.77$  seconds for PAV) meaning that PAVs needed remarkably less time to be comprehended than PSVs; this difference was also found to be statistically significant ( $p = .013$ ).

The participants' performance on comprehending passive sentences with double-object verbs (PDO) and passive sentences with single-object verbs (PSO) was also compared. The observed comprehension mean accuracy for PDOs was  $57.79 \pm 20.48$  in contrast to  $63.12 \pm 21.67$  for PSOs which was statistically significant ( $p = .000$ ). Regarding the reaction times, the findings implied a significantly better performance for the comprehension of PSOs ( $28.54 \pm 9.60$  seconds) in contrast to PDOs ( $30.68 \pm 11.72$  seconds) with the  $p$  value of  $.001$ . In other words, the comprehension of PSOs was significantly easier and faster the PDOs for the participants.

**Table 4:** Mean Accuracy of Paired Passive Structures

		Mean Difference	Std. Deviation	Std. Error Mean	t	df	Sig. (2- tailed)
Pair 1	PI (72.04) PR (73.12)	-1.08	22.41	1.57	-.69	203	.493
Pair 2	PN (63.66) PAF (66.88)	-3.21	23.91	1.67	-1.92	203	.056
Pair 3	PQ (69.73) PST (66.88)	2.85	27.70	1.94	1.47	203	.143
Pair 4	PSV (62.29) PAV (66.66)	-4.37	22.32	1.56	-2.80	203	.006
Pair 5	PDO (57.72) PSO (63.12)	-5.33	19.93	1.39	-3.82	203	.000

**Table 5:** Mean Reaction Times of Paired Passive Structures

		Mean Difference	Std. Deviation	Std. Error Mean	t	df	Sig. (2- tailed)
Pair 1	PI (26.66) PR (25.90)	.76	9.65	.67	1.13	203	.259
Pair 2	PN (28.11) PAF (29.45)	-1.35	9.96	.69	-1.93	203	.055
Pair 3	PQ (28.08) PST (29.45)	-1.38	8.46	.59	-2.32	203	.021
Pair 4	PSV (28.83) PAV (26.90)	1.91	10.93	.76	2.50	203	.013
Pair 5	PDO (30.68) PSO (28.54)	2.13	8.72	.61	3.50	203	.001

Concerning the second research question, the comprehension performance of the participants for different passive structures was contrasted in terms of their overall comprehension accuracy (mean scores) and comprehension speed (mean reaction times). Table 6 depicts the descriptive statistics of the participants' scores for comprehending different passive structures, and Table 7 presents the descriptive statistics for the participants' reaction times while facing different passive structures.

**Table 6:** Average Scores of Participants for Comprehending Different Passive Structures

Passive types	Sum	Mean	Standard Deviation
PR	14916.05	73.11	28.78
PI	14695.99	72.04	25.96
PST	13599.40	66.66	10.31
PAF	12707.86	62.29	15.03
PQ	14224.33	69.73	25.83
PN	12987.79	63.66	32.52
PAV	13452.89	65.98	19.23
PSV	12451.98	61.99	30.09
PDO	11789.75	57.79	37.61
PSO	11917.43	63.98	17.67

**Table 7:** Average Reaction Times for Comprehending Different Passive Structures

Passive types	Sum	Mean	Standard deviation
PR	5284	25.90	14.73
PI	5440	26.66	3.72
PST	5878	28.81	7.48
PAF	5488	26.90	8.56
PQ	5728	28.08	4.90
PN	5734	28.11	7.05
PAV	5376	26.89	3.09
PSV	5789	28.98	5.76
PDO	6259	30.68	7.46
PSO	5987	28.66	3.09

As discernible in Tables 8, although the participants' comprehension accuracy of different passive structures was different, this difference was not statistically significant ( $p = 0.474$ ); However, their comprehension speed differed significantly ( $p = 0.00$ ) across different passive structures (Table 9).

**Table 8:** Comparing the Participants' Mean Scores for Comprehending Different Passive Structures

Source of Variation	Sum of Squares	df	Mean Square	F	P value
Between Groups	38037.17	6	6339.52	13.42	.474
Within Groups	671129	1421	472.29		

**Table 9:** Comparing the Participants' Reaction-time for Comprehending Different Passive Structures

Source of Variation	Sum of Squares	df	Mean Square	F	P value
Between Groups	3091.05	6	515.17	4.22	.000
Within Groups	173345	1421	121.99		

According to the findings about the needed reaction-time for comprehension, different types of passive structures can be arranged in a

hierarchy based on the comprehension challenge they generate. In this hierarchy, passives with regular verbs (PR) were the least challenging, followed by passives with irregular verbs (PI), affirmative passives (PA), passives in question forms (PQ), negative passives (PN), passives with single-object verbs (PSO), passives with the action verbs (PAV), and passives with the state verbs (PSV), and for the passive with double-object verbs (PDO), the participants had the most comprehension difficulty.

## **DISCUSSION**

This study focused on comparing the comprehension difficulty of active and passive sentences and attempted to compare the comprehension accuracy and speed of different passive structures by intermediate EFL learners and finally proposed a hierarchy of comprehension difficulty for different passive structures.

Firstly, the comprehension difficulty of active and passive sentences was compared. Based on the findings, the participants performed remarkably better for comprehending active sentences over the passive ones both in terms of accuracy and speed. Overall, the data provided evidence that passive sentences are more challenging to understand and need more time to be processed. This finding was consistent with the view that passives are more complex than actives to perceive because of an additional syntactic movement (e.g., Johns & Jones, 2015; Kiparsky, 2013). This may be due to the less frequency of use (Stella & Engelhardt, 2022); However, the findings contradict Paolazzi et al. (2019, 2022) who investigated the comprehension of passive action and state predicates and reported that passive sentences are processed faster than actives. They continued that passives with action verbs that result in change of state seem to be acquired earlier than passives of other predicates types.

Regarding the first research question dealing with the possible differences among different passive verb structures, it was revealed that there was an insignificant difference between the comprehension of



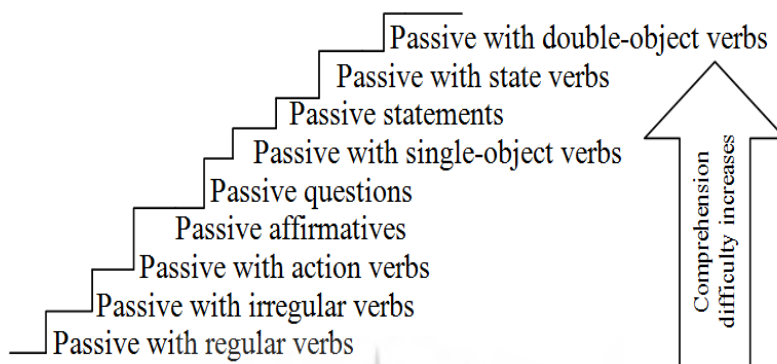
passives with regular verbs and passives with irregular verbs although the latter were comprehended easier and faster. The same was true about the comprehension difference between passive negative and affirmative sentences. But the differences between passives with state versus action verbs, passives with single-object versus double-object verbs, and passive questions and statements were found to be statistically significant both in terms of comprehension accuracy and comprehension speed. The findings were in line with Volpato, Verin, and Cardinaletti (2015) who claimed that comprehension of double-object sentences were more demanding for EFL learners of all proficiency levels. They implied that with two nouns acting as objects added to the subject of the sentence, double-object sentences were more complicated and time-consuming for EFL learners to decode.

The findings confirmed what Messenger, Branigan, McLean, and Sorace (2012) argued about the passivization of state verbs. They claimed that the passivization of state verbs might be more erroneous than the passivization of the events.

The findings also certified what was reported by Gehrke and Grillo (2009) about the equal challenge of comprehending and producing regular and irregular in both active and passive format but contradict with what was documented by Ambridge et al. (2016) and Kodadady et al. (2012) about the significant difference in comprehending L2 sentences in question and statement formats.

In reference to the second research question, it was revealed that a significant difference existed among different passive structures as comprehension speed was concerned; However, this difference was not statistically significant in terms of comprehension accuracy. Supposedly, the comprehension challenges are measured in terms of the elapsed time in many psycholinguistic studies (Afhami & Khaghaninejad, 2022; Alsady, 2018); Hence, based on what was found about the comprehension accuracy and speed of participants, it can be justifiably claimed that different passive structures impose different degrees of comprehension

burden on EFL comprehenders. Furthermore, in the light of the findings, the following hierarchy can be proposed for the comprehension challenge of different passive structures for EFL learners.



**Figure 1:** The Comprehension Difficulty of Passive Structures Based on the Participants' Reaction Times

A great number of students without sufficient knowledge of the passive structure mostly face comprehension difficulties (Hale, 2011). They mostly encounter a series of continued failure during their comprehension tasks. In the same vein, Kuperberg (2007) and Roberts (2012) pointed out that the learners' grammatical knowledge (including the passive structures) was a significantly influential factor influencing language comprehension. O'Brien and Cook (2016) also posited that deepness of syntactic consciousness and meta-cognitive recognition were some of the important factors influencing comprehension.

## CONCLUSION AND IMPLICATIONS

The findings suggested that EFL learners seem to have more difficulty in comprehending passive sentences, and this comprehension difficulty was significantly different for diverse passive structures. This study attempted to report this challenge both in terms of comprehension accuracy and comprehension speed.

As sentence processing is crucial in the text comprehension (Winitz, 2020), awareness about the effects of different structures on mental processing plays a role in improving the comprehension mechanisms. This study's results may suggest which passive structures need more focus, explanation, and practice for intermediate EFL learners. A better command of the passive structure can lead to a higher proficiency in grammar, and as a consequence, help learners improve their reading skill (Oboko, 2020).

Familiarizing EFL learners with different passive structures and the mental mechanisms behind them can enable learners gain control, awareness, and autonomy over the more challenging passive types. Consequently, the findings of this research would provide insights for materials developers and syllabus designers in the way that an order of comprehension challenge should be followed for presenting different passive structures in instructional contents. Moreover, different passive structures need different amount of time, energy, and practice both on the part of the learner and the instructor.

One significant limitation of the study was the Covid pandemic which affected the ease of access to the participants of other proficiency levels. Hence, the findings should be cautiously generalized to other English proficiency levels. Moreover, the study focused on the adult EFL learners; comprehension challenges of other age-groups (e.g., teenagers) may not completely conform to these findings.

### **Disclosure statement**

No potential conflict of interest was reported by the authors.

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