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A Comparative Study of Cloze Test and C-Test in Assessing Collocational Competence of Iranian EFL Learners

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Abstract

One of the dominant approaches to language testing is the integrative approach. This view of testing involves the testing of language in context. The present study aimed at shedding more lights into the effectiveness of the cloze test, C-test and open ended test in assessing Persian EFL learners' collocational competence. To this end, four hundred and twenty Persian EFL learners from Yazd and Shiraz universities were selected. They were from both intermediate and advanced proficiency groups. The participants were assigned into three groups of one hundred and forty learners and took each of the tests separately. The results yielded compelling reason to argue that advanced participants in all of these three tests performed much more efficiently compared to their intermediate peers and indicated more collocational competence. Moreover, the results did not provide support for the superiority of C-test over the other two tests which were mentioned. The study, suggested important implications for language learners, EFL instructors and materials developers.

Keywords: Collocation, Cloze test, C-test, Open ended test, Language proficiency

Introduction

One of the dominant approaches to language testing is the integrative approach. This view of testing involves the testing of language in context. It is concerned, therefore, with overall meaning and proficiency, the total communicative effect of discourse and the underlying linguistic competence of which it is argued that all learners possess (Oller, 1979).

Cloze test which was originated by Taylor (1953) as a means of measuring the readability of texts was initially used to assess first language (L1) reading comprehension. The cloze procedure was being used both as a reading activity and as a test in second language (L2) situations in the early 1970s. A cloze test differs from a 'fill in the blank's exercise which is composed of isolated sentences as it is applied to a longer passage and is therefore contextualized. Reading is probably the most common and easiest skill of the four skills to be tested, however testing reading has difficulties and there are issues that anyone testing reading comprehension should know.

Vocabulary knowledge involves considerably more than just knowing the meanings of given words in isolation; it involves knowing the words that tend to co-occur with each other. English language native speakers have thousands of words at their disposal. Theoretically, they are able to use the words to produce and understand an unlimited number of sentences that they have never heard or said before by using their knowledge of grammar. They use a large number of ready-made chunks of words by putting them together in different ways according to their communication needs. Words become bound to each other due to repeated use in the same chunks by members of the language community. Words have the ability to predict each other's occurrence when they are combined in a chunk. On the contrary, because English words are not linked in ready-made chunks

in the memory of non-native speakers, inappropriate word combinations are often produced as a result.

This study is aimed at comparing three test types of cloze test, C-test and open ended test in measuring lexical and grammatical collocations knowledge of Iranian EFL learners. Thus, it intends to determine whether C-test is more effective than cloze test and open ended test in measuring learners' collocational competence or not.

Research Design

This study used quantitative methods in utilizing cloze test, C-test and open ended test in measuring collocational competence of Iranian EFL learners.

Participants

The participants of the study were 420 Persian EFL learners of English who were studying English language at Yazd and Shiraz universities. They were 210 male and 210 female students and their ages were between 18-24 for intermediate group and 23-32 for advanced group. The criteria to select participants of the study included: (a) previous academic L2 learning background (at least 8 months) for intermediate learners and (5 years) for advanced students. (b) An Oxford Placement Test was conducted to ensure the least difference among reading proficiency level of students in intermediate and advanced levels.

Instruments

To achieve goals of the study, several instruments were used for data collection. In this study, four types of test were utilized as measurement instruments:

First, an Oxford placement test was conducted to determine participants' collocation proficiency in order to select and include those students who scored within acceptable range of collocation proficiency in the study.

Second, a 50-item collocation C-test was developed and validated for this study. C-test had 50 items which included five lexical and grammatical categories of nouns, verbs, adjectives, adverbs and prepositions.

Third, a 50-item multiple-choice collocation cloze test was developed and standardized for this study. The cloze test included 50 collocation items which included five lexical and grammatical categories of nouns, verbs, adjectives, adverbs and prepositions.

Fourth, a 50 item collocation open ended test was developed for this study. The collocation items included five lexical and grammatical categories of noun, verb, adjective, adverb and preposition. The text of the test was similar to cloze test and C-test to provide opportunity for comparison between these three test types. As learners had no clue to help them to fill in the blanks, this test was the most difficult among the test types.

Results

In the current study, learning collocation was chosen to study in order to provide an explanation whether three types of test e.g. cloze test, C-test and open ended test are effective in measuring the collocational competence of EFL learners and which of these three tests are more effective in measuring collocational competence of learners.

Two-way ANOVA Results for Test types and Proficiency Level

The main output from two-way ANOVA is a table labeled Tests of Between-Subjects Effects.

Table 1: Descriptive Statistics of the Two-way ANOVA Regarding the Effect of Test type and Proficiency Level on Collocational Scores

Descriptive Statistics				
Dependent Variable: Scores				
Test_ type	Proficiency_ level	Mean	Std. Deviation	N
Cloze	Intermediate	44.06	7.583	70
	Advanced	61.23	10.239	70
	Total	52.64	12.443	140
C-test	Intermediate	41.54	11.543	70
	Advanced	61.03	9.465	70
	Total	51.29	14.360	140
open ended test	Intermediate	24.86	4.094	70
	Advanced	32.49	3.706	70
	Total	28.67	5.458	140
Total	Intermediate	36.82	11.893	210
	Advanced	51.58	15.872	210
	Total	44.20	15.837	420

Table 2: Tests between Subjects Effect showing the Results of Two way ANOVA Regarding the Effect of Test type and Proficiency level on Collocational Scores

Tests of Between-Subjects Effects						
Dependent Variable: Scores						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	76413.714[a]	5	15282.743	220.597	.000	.727
Intercept	820528.800	1	820528.800	1.184E 4	.000	.966
Test_ type	50767.600	2	25383.800	366.400	.000	.639
Proficiency_ level	22880.952	1	22880.952	330.273	.000	.444
Test_ type * Proficiency_ level	2765.162	2	1382.581	19.957	.000	.088
Error	28681.486	414	69.279			
Total	925624.000	420				
Corrected Total	105095.200	419				
a. R Squared = .727 (Adjusted R Squared = .724)						

First, the main effects of the independent variables i.e. test type and proficiency levels are checked. Test type row indicates a significance value of 0.001, which shows that the test types can affect collocation scores. The proficiency level has also a significance value of 0.001 which shows that proficiency level affects collocation scores. The effect size of the test type variable, as shown under partial Eta Squared column is .639 indicating a large effect size.

Given the significance of the test type variable, it should become clear which test type is significantly different from the other tests. Here, table called multiple comparisons should be investigated.

Table 3: Multiple Comparison Table Providing a Comparison between the Results of Different Test types

Multiple Comparisons						
scores Scheffe						
(I) Test_type	(J) Test_type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Cloze	C-test	1.36	.995	.395	-1.09	3.80
	open ended test	23.94*	.995	.000	21.50	26.39
C-test	Cloze	-1.36	.995	.395	-3.80	1.09
	open ended test	22.59*	.995	.000	20.14	25.03
open ended test	Cloze	-23.94*	.995	.000	-26.39	-21.50
	C-test	-22.59*	.995	.000	-25.03	-20.14
Based on observed means. The error term is Mean Square(Error) = 69.266.						
*. The mean difference is significant at the .05 level.						

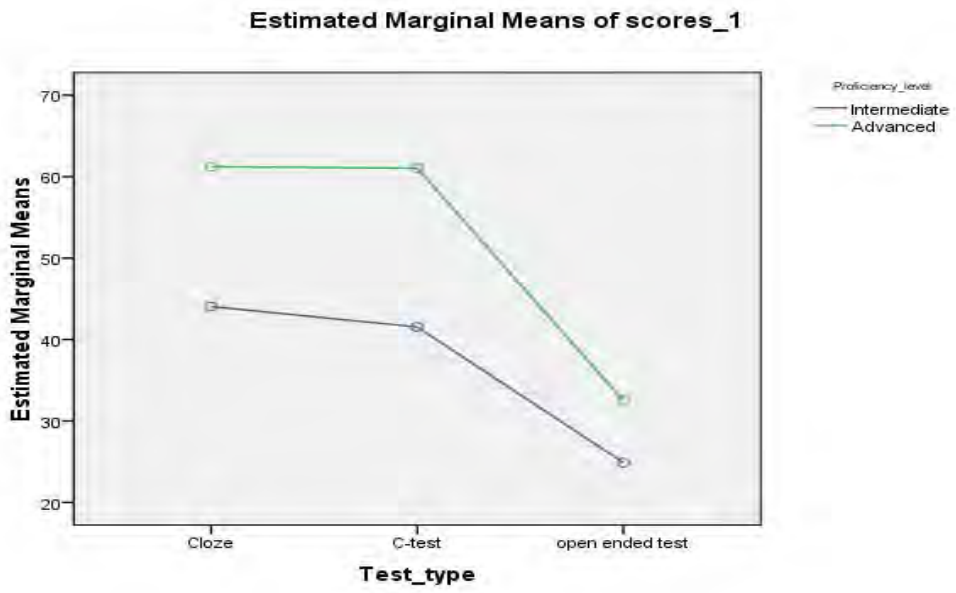

Figure 1: A means plot showing the relationship between test types and proficiency level

The results show that cloze test and open ended test, as two test types are significantly different from each other with a p value of .001. But cloze test and C-test are not significantly different from each other with a significance value of .395. C-test and open ended test show a significance value of .001 which shows that they are significantly different from each other. Open ended test shows a significance value of .001 in comparison with cloze test and C-test which indicates that it is significantly different from both of these tests. In order to investigate the relationship between two independent variables, a means plot is conducted

MANOVA Results for Test type and Collocational Categories

Table 4: Descriptive Statistics for Test type and Collocational Categories

Descriptive Statistics				
	test_ type	Mean	Std. Deviation	N
Noun_ collocation	cloze test	52.57	20.580	140
	c-test	52.14	18.024	140
	open-ended test	39.43	13.559	140
	Total	48.05	18.616	420
Verb_ collocation	cloze test	47.07	16.985	140
	c-test	46.57	19.518	140
	open-ended test	27.86	13.453	140
	Total	40.50	19.034	420
Adjective_ collocation	cloze test	45.86	16.093	140
	c-test	42.43	19.262	140
	open-ended test	17.21	9.450	140
	Total	35.17	20.053	420
Adverb_ collocation	cloze test	59.36	20.008	140
	c-test	50.79	19.307	140
	open-ended test	22.86	10.056	140
	Total	44.33	23.096	420
Preposition_ collocation	cloze test	57.79	15.871	140
	c-test	64.07	20.599	140
	open-ended test	35.57	14.704	140
	Total	52.48	21.116	420

Multivariate tests of significance indicate whether there are statistically significant differences among the groups on a linear combination of the dependent variables. One of the most commonly reported statistics is Wilks' Lambda.

Table 5: Multivariate Tests Indicating Differences among the Groups on Dependent Variables

Multivariate Tests[c]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.941	1.322E3[a]	5.000	413.000	.000	.941
	Wilks' Lambda	.059	1.322E3[a]	5.000	413.000	.000	.941
	Hotelling's Trace	16.001	1.322E3[a]	5.000	413.000	.000	.941
	Roy's Largest	16.001	1.322E3[a]	5.000	413.000	.000	.941

	Root						
test_ type	Pillai's Trace	.633	38.321	10.000	828.000	.000	.316
	Wilks' Lambda	.407	46.812[a]	10.000	826.000	.000	.362
	Hotelling's Trace	1.356	55.869	10.000	824.000	.000	.404
	Roy's Largest Root	1.279	1.059E2[b]	5.000	414.000	.000	.561
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + test_ type							

Here, the Wilks' Lambda value and significance value are .407 and .001 which show that there is a statistically significant difference between three test types of cloze test, C-test and open ended test in collocation scores.

MANOVA Results for Proficiency level and Collocational Categories

Table 6: Descriptive Statistics for Proficiency level and Collocational Categories

Descriptive Statistics				
	Proficiency _level	Mean	Std. Deviation	N
Noun_ collocation	intermediate	40.14	15.969	210
	advanced	55.95	17.725	210
	Total	48.05	18.616	420
Verb_ collocation	intermediate	32.57	16.165	210
	advanced	48.43	18.403	210
	Total	40.50	19.034	420
Adjective_ collocation	intermediate	27.76	15.382	210
	advanced	42.57	21.433	210
	Total	35.17	20.053	420
Adverb_ collocation	intermediate	37.14	18.338	210
	advanced	51.52	25.085	210
	Total	44.33	23.096	420
Preposition_ collocation	intermediate	45.67	19.313	210
	advanced	59.29	20.681	210
	Total	52.48	21.116	420

The importance of the impact of proficiency level on collocational categories' scores can be evaluated using the effect size statistic provided in the final column. Partial Eta Squared represents the proportion of the variance in the dependent variables that can be explained by the independent variable which is proficiency level.

Preliminary assumption testing was conducted to check for linearity, homogeneity of variance covariance matrices and multi collinearity with no serious violations noted. There was a statistically significant difference between intermediate and advanced learners on the combined dependent variables, F(5,414)=29.04 p= .001 ; Wilks' Lambda= .740 ; partial eta squared= .26. When the results for the dependent variables were considered separately, all of the dependent

variables reached statistical significance. Noun collocation reported F(1,418)=92.2 p= .001 ,partial eta squared= .181 , verb collocation reported F(1,418)=88.01 p= .001 ,partial eta squared= .174 , adjective collocation reported F(1,418)=66.17 p= .001 , partial eta squared= .137 ,adverb collocation reported F(1,418)=44.98 p= .001, partial eta squared= .097 and finally, prepositional collocation reported F(1,418)=48.64 p= .001 , partial eta squared= .104 . An inspection of the mean scores indicated that advanced learners reported higher collocational score in noun collocation (M=55.95,SD=17.72) than intermediate learners (M=40.14 ,SD=15.96) ,again advanced learners reported better score (M=48.43 ,SD=18.40) in verb collocation than intermediate learners (M=32.57 ,SD=16.16), advanced learners in adjective collocation showed these scores (M=42.57 ,SD=21.43), while intermediate learners reported (M=27.76 ,SD=15.38), advanced learners in adverb collocation had such scores (M=51.52 ,SD=25.08) while intermediate learners reported (M=37.14 ,SD=18.33), Finally, advanced learners in prepositional collocation showed (M=59.29 ,SD=20.68) while intermediate learners reported such scores (M=45.67 ,SD=19.31).

Conclusion

Three Types of Test

Cloze Test

Having considered the results acquired from two-way between groups analysis of variance on the intermediate and advanced learners' performances on the cloze test, it was indicated that advanced learners performed much better on this test having a mean score of 61.23 compared with intermediate learners which had a mean score of 44.06. So, proficiency level is an important factor for learners to answer cloze test items. The fact that proficiency level can affect the learners' performances on cloze test is not a new finding in the literature of written research investigating collocational competence of learners through cloze test ;however, the findings of this study contributes to the deeper understanding of how proficiency level can affect the learners' performance in answering cloze test items in an Iranian EFL context. Advanced proficiency group learners have already proved to be the best group in answering collocational items of cloze test. The reason for these results might be partially or wholly due to the explicit nature of cloze test which makes use of a fixed deletion technique or random deletion technique. This will give advanced participants of cloze test more skill to show more spontaneity and speed in providing answer.

The findings of this study are consistent with the conclusions derived from the earlier studies such as Ajideh and Mozaffarzadeh (2012) who conducted a comparative study of cloze test and C-test in reading comprehension and reached to this conclusion that despite the dominant view that c-test works better than the cloze test, the subjects performed better on the cloze test as measure of reading comprehension. There are other studies which support and introduce cloze test as a measure of EFL proficiency (Oller,1973; Irvine, Atai, & Oller,1974; Stubbs & Tucker,1974; Aitken,1977; Alderson, 1979).

C-Test

The other type of test which is investigated in this study is C-test. This test is another type of test that is used mainly in measuring the reading ability of the learners. So, this test was used as to whether it can measure the collocational competence of Iranian EFL learners or not.

The findings lead to the following conclusions. First, in this study it was indicated that C-test which is based on the rule of two was more difficult for intermediate learners than advanced learners. Cloze test provides the answers and the testes need to choose one of the choices, but the learners do not have such opportunities in answering C-test and they are supposed to simply supply the needed letters which imposes heavy burden on the participants' processing capacities. Second,

the C-test provides the first half of the word and there are some dashes after the first half which shows the number of letters which are required so that the word is completed. In some cases there are some words which are almost similar to each other and the learner who is supposed to provide the second half may provide wrong letters, for example, words like eventfully and eventually which are both ten letters and early language learners and those who do not have enough proficiency may get too confused in answering these test items. Third, as the rule of two is applied in constructing c-test items, the second half of every other word is subjected to deletion. Thus, too many mutilated words are provided that makes perceiving complete words difficult and the learners complain a lot about the readability and face validity of the tests. Finally, in addition to the first and last sentences of the text which are left intact to provide enough contexts for the learner, sometimes, the mechanics and rules of writing help the learner in recognizing different collocational categories and answering test items like comma, colon, semicolon and etc.

Open ended Test

The third type of test which has been used to measure collocational competence of Iranian EFL learners is open ended test. In this test, similar passages like those of cloze test and C-test are selected. This is done in order to enable the test designer to compare the results between these three test types fairly. In this test type, the learners are supposed to provide the answers themselves.

From the findings of this study, these conclusions can be drawn. First, although all of these test types have been constructed based on similar passages, but this test type was deemed as the most difficult one among all the three test types. The participants had to answer and fill the blanks using the environment and context of the test. Unlike the other test types, the learners were given no clue in answering test items. Second, in this test type, advanced proficiency learners scored better than their intermediate peers. This indicates that proficiency plays a major role and advanced learners which had previous opportunity in facing and dealing with these texts and collocations items performed much more effectively on this test. Finally, another point that needs to be mentioned is that as there was not sufficient clue and context in this test for test takers, they were not that interested in answering items as it required heavy processing capacity on the part of language learners while in the other two test types, the learners had some clue.

Collocation

Generally speaking, this study tries to measure the Iranian EFL learners' collocational competence. The five collocational categories of noun, verb, adjective, adverb and preposition are chosen to be further investigated in EFL learners' performances. Each of these three test types had fifty items and each of these tests had ten noun, verb, adjective, adverb and prepositional collocations.

The findings of this study led to the following conclusions. First, cloze test has measured noun, verb, adjective and adverb collocations better than C-test and open ended tests which may be related to the point that cloze test provides four choices for each item and the learners are supposed to choose among them. Second, C-test has been more effective in measuring prepositional collocations of the participants as half of the prepositional words are provided and this serves as a big clue for language learners. Third, in case of open ended test, as participants had no clue and no choice is provided for them, they performed poorly on this test through all the five collocational categories in comparison to the other two tests. Finally, it was shown that participants' performance on all the three test types through all the collocational categories were significant. (p=.001).

These findings are in line with some of the research projects which have been conducted in this regard. These findings support this view point that different proficiency levels influence the learners' performances on lexical and collocational categories and higher proficiency levels learners can perform far more effectively on these categories. It should also be mentioned that the more

students are in command of collocations, the more they show reading proficiency as different collocational categories enable language learners to learn more chunks of words and word clusters. Based on the results from the conducted studies, it has been shown that the language learners learn vocabularies and phrases in groups more effectively than when they are isolated from context.

This study was conducted to fill a gap in the existing literature in measuring the effectiveness of the cloze test, C-test and open ended test in assessing collocational competence of Iranian EFL learners. This study tried to utilize the lexical and grammatical collocations framework in assessing Iranian EFL learners' collocational competence. On the whole, the results of the conducted analyses suggested that C-test was not superior to cloze test and open ended test in assessing collocational competence of EFL learners. In addition, the analyses confirmed that proficiency level is an important and determining factor and influences participants' performances on different test types. Therefore, the learners from higher proficiency levels performed more effectively on different test types compared with their lower proficiency peers.

Implications of the Study

Acknowledging that the general implications from a single study have to be drawn cautiously, there exist certain pedagogical implications based on the results of the present study. The findings of the present study may have major implications for language learners, language teaching methodology, EFL instructors, teacher trainers, syllabus designers and materials developers. Furthermore, teacher's experiences show that Iranian EFL learners generally have inadequate knowledge of English collocations, in particular of restricted collocations. The findings of the present study suggest that test designers should develop and validate collocation tests using both grammatical and lexical collocations. The results also refer to designing tests that focus on various types of collocations. The results of this study provide more effective methods for learning collocations.

Suggestions for Further Research

This study used quantitative methods in utilizing cloze test, C-test and open ended test in measuring collocational competence of Iranian EFL learners. However, this can be regarded as a starting point and further research in this area undoubtedly will be essential. Several suggestions are provided here for future research.

This study focused on intermediate and advanced students. It would be valuable to study knowledge of collocations at different proficiency levels, especially at the beginning level, to see how the beginners comprehend texts although they have been equipped with limited knowledge of collocations. Furthermore, another suggestion would be to conduct a similar study by using qualitative methods to observe EFL learners’ subtle progress and their reactions to collocations and collocation instruction. By detecting EFL learners’ improvement in the process of learning collocations and their reactions to learning collocations, researchers have the chance to study how EFL learners digest their learning of collocations, internalize them and turn that knowledge into their capability of comprehending texts. In fact, it is satisfying to investigate how EFL learners acquire collocational knowledge and turn their input into output, which enables EFL learners to comprehend texts more easily.

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