

# A Corpus-based Study of the Validity of Cloze Test in CET-4

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**Abstract:** The primary purpose of this paper, based on the test paper from 2016 to 2018, is to provide the evidence to demonstrate the validity of the cloze test in CET-4. The quantitative analysis is applied to illustrate that the figures of type-token ratio (TTR) account for the validity of blanked cloze testing design. Meanwhile, the qualitative analysis indicates that cloze test in CET-4 is characterized by semantical and syntactical levels.

## 1. Introduction

CET-4 is an English test for non-majored college learners in China, which is a way to test college learners' English comprehensive proficiency and plays a key role in learners' employment. While, as the first part of reading comprehension, blanked cloze is not easy to handle, resulting in influencing learners' efficiency and accuracy when answering. Syllabus for College English Test —Band Four (CET-4), based on the syllabus of college English, is a sort of criterion-related norm-referenced test. Among the three parts of reading comprehension including blanked cloze, matching and reading in depth, blanked cloze is the first section, in which there is a passage with ten blanks and learners are required to select one word for each blank from a list of choices given in a word blank and each choice in the blank is identified only once without any repetition. The passage, with its moderate language, aims to check learners' reading ability covering their capacity to acquire information and mastery of accuracy and time limitation. Whereas, how to mark the infinite possible answers and enhance accuracy remains a difficult point. The research questions mainly conducted in this paper are: (1) What is the distribution of TTR level in CET-4 blanked cloze in recent four years? (2) Are there any clues in integrating meaning from several pieces of information in the context?

## 2. Literature Review

Although the test validity has been studied for many years, there is still research field about it. Actually, the proportion of reading comprehension in CET-4 paper accounts for 35%, in which blanked cloze, as the initial section, may influence the status of answering questions next. Thus, it is necessary that the characteristics of blanked cloze should be studied in this paper and offer some conclusion, by which learners grasp how to cope with blanked cloze effectively and improve the ability to read materials.

Cloze test, as an effective way to test testees' language ability, is frequently applied in various examinations. So it has been studied based on different levels.

### 2.1. The Definition of Cloze Test

The cloze test is believed to be a valid and economical way to test testees' language comprehension ability, which was originally designed by the American linguist Taylor in 1953 in Cloze Procedure, as a means of assessing the article legibility in a reading test for native speakers. Taylor defined cloze test as "A cloze unit may be defined as: any single occurrence of a successful attempt to reproduce accurately a part deleted from a 'message'(any language product), by deciding from the context that remains what the missing part should be"(Taylor,1953:416). [1]

### 2.2. The Construction of CET-4 Blanked Cloze Test

Cloze test in CET-4 is constructed by a suitable passage in which some words with redundancy

information are deleted, aiming at examining the testee's semantic and syntactical ability by judging the most acceptable words listed in a format on the basis of testees' understanding of the available contextual clues. There are fifteen alternative options for the testees to select appropriate words for ten blanks which contextually suits to the blanks without any repetition. The designer may insert five redundant words to distract the understanding of the meaning, in which the main targets are nouns, verbs, adjectives and adverbials with more emphasis on the first three parts of speech.

### **2.3. Test Validity**

Validity is a critical and elementary concept in language testing, because it determines the target, content and method of the testing. In the Dictionary of Language Testing, it is defined as "The quality which most affects the value of a test, is prior to, though dependent on, reliability. A measure is valid if it does what it intended to do, which is typically to act as an indicator of an abstract concept which it claims the measure." (Davies, A. et al. 2002: 221) [2]

### **3. Methodology of the Paper**

The Antconc and excel software are employed in this thesis to demonstrate based on the statistics of the recent three years' CET-4 paper, with three different sets of paper in each examination. Altogether eighteen passages are included in these three years' tests. AntConc software is applied to collect the data of types, tokens and TTR of eighteen tests. Next, the data input is completed through excel to analyze the TTR distribution in six tests (three sets of paper in each examination and two examinations in each year) and identify the validity of the test. Besides, through the types and tokens, some lexical and syntactical features are revealed.

### **4. Analysis and Discussion**

#### **4.1. The Analysis of TTR Level of CET-4 Blanked Cloze in Recent Three Years**

The text vocabulary is the primary level in the language testing. The relationship between the number of different word forms, or types, and the number of running words, or tokens is called the type-token ratio, shortened as TTR. TTR is a percentage=  $(\text{types}/\text{tokens}) * 100$ . (Douglas Biber, 2011: 52) [3]

Table 1 The types and tokens of CET-4 blanked cloze (from 2016 to 2018)

Text	Types	Tokens	TTR
2018 :12/1	158	234	67.52%
2018: 12/2	153	249	61.45%
2018: 12/3	179	247	72.47%
Mean	163.33	243.33	67.15%
2018: 6/1	148	245	60.40%
2018: 6/2	194	268	72.39%
2018: 6/3	165	248	66.53%
Mean	169.00	253.67	66.44%
2017: 12/1	172	252	68.25%
2017: 12/2	170	249	68.27%
2017: 12/3	152	229	66.38%
Mean	164.67	243.33	67.63%
2017: 6/1	149	221	67.42%
2017: 6/2	180	254	70.87%
2017: 6/3	179	282	63.48%
Mean	169.33	252.33	67.26%
2016: 12/1	149	237	62.87%
2016: 12/2	145	209	69.38%
2016: 12/3	150	237	63.29%
Mean	148.00	227.67	65.18%
2016: 6/1	161	228	70.61%
2016: 6/2	147	233	63.10%
2016: 6/3	173	257	67.32%
Mean	160.33	239.33	67.01%
Mean of the total	162.54	243.45	66.77%

As is seen in the table above, the statistics from Antconc software shows the result of TTR and the analysis demonstrates that the average number of types and tokens in the test for December in 2018 are 163.33 and 243.33 respectively. In June of 2018, the average amount of types and tokens are 169.00 and 253.67. While the average types of 2017 and 2016 are 164.67, 169.33, 148.00 and 160.33, and the average number of types of blanked cloze in recent three years is approximately 162.54. The number of different word forms in each CET-4 blanked cloze between 2016 and 2018 nearly remains steady, ranging from 160 to 169 except for 148 in December of 2016. Likewise, the average number of running words named tokens is 243.45, with the range from 243.33 to 253.67 except for 227.67 in December of 2016. And the TTR of these three years' CET-4 blanked cloze is shown in the following diagram.



Figure 1 The TTR of CET-4 blanked cloze (from 2016 to 2018)

As is presented in the diagram, the largest TTR figure of blanked cloze appears in December of 2017, reaching 67.63. In contrast, the percentage of the TTR turns out to be the lowest one in December of 2016. Nonetheless, the trend stays stable with the amount displayed from 65.18% to 67.63, with the minor differences.

More importantly, the number's similarity proves the fairness of three different sets of paper in each test by promoting the validity and decreasing the possibility of any bias.

#### 4.2. Analysis of Contextual Clues in CET-4 Blanked Cloze in Recent Three Years

The procedure of finishing CET-4 blanked cloze is not a simple pattern completion task due to the fact that it involves reasoning process when reading the context. Thereby, there must be some clues contributing to the successful completion of the correct words. Semantically, among the frequently repeated words, the conjunctions "but" is a typical one, with the indication of opposite meaning so that testees may speculate the meaning and select the information in the reasoning process. Besides, "so" is another one with high frequency in cloze test, explaining the logical relationship between reasons and consequences. And syntactically, the preposition "of" is employed to imply the core words are nouns nearby. Another case in this point is "and", offering the hint of the same component. Moreover, many other examples are presented. Hence, learners' semantic and syntactic levels are tested in cloze test and the capacity to complete the deleted words with redundancy information in the communicative language is embodied.

#### 5. Conclusion

With combination of quantitative and qualitative analysis in this paper, the validity of CET-4 blanked cloze is identified. Clearly, the word density of blanked cloze in recent three years is similar and there is not a distinct difference in the average distribution of the TTR, presenting that the designers of CET-4 try to keep the balance of word density and the TTR in cloze text. Furthermore, it is also illustrated that application of contextual clues are designed by the experts so as to check the testees' ability to analyze the discourse comprehensively and comprehend the articles contextually. Meanwhile, there may be some limitations of the paper, because the AntConc software is not capable of defining the types accurately. For instance, the word "to" can be applied as the infinitive as well as the preposition. However, through modification of the data, the rate of mistakes has been minimized.

**References**

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