# THE RELATIONSHIP BETWEEN COLLOCATIONAL KNOWLEDGE AND READING COMPREHENSION ACHIEVEMENT OF UNDERGRADUATE EFL STUDENTS OF ENGLISH EDUCATION STUDY PROGRAM OF UIN RADEN FATAH PALEMBANG



## **UNDERGRADUATE THESIS**

This thesis was accepted as one of the requirement to get the title of Sarjana Pendidikan (S.Pd.)

by

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2017

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di

Palembang

Assalamu'alaikum Wr. Wb.

Setelah kami periksa dan diadakan perbaikan-perbaikan seperlunya, maka skripsi "THE RELATIONSHIP **BETWEEN** yang berjudul COLLOCATIONAL KNOWLEDGE AND READING COMPREHENSION ACHIEVEMNT OF UNDERGRADUATE EFL STUDENTS OF ENGLISH **EDUCATION** STUDY **PROGRAM** OF **RADEN** UIN **FATAH** PALEMBANG", ditulis oleh saudari Dian Fitriani (13250018) telah dapat diajukan dalam sidang munaqasah Fakultas Tarbiyah dan Keguruan UIN Raden Fatah Palembang. Demikianlah terima kasih.

Wassalamu'alaikum Wr. Wb.

Palembang, 12 Juli 2017

Pembimbing I Pembimbing II

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#### STATEMENT PAGE

I hereby,

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state that

1. All the data, information, interpretation, and conclusions presented in this thesis, except for those indicated by the sources, are the results of my

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my magister degree that I have received though this thesis.

Palembang, July 26<sup>th</sup>, 2017

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iv

# **Dedication**

The researcher dedicated this thesis to the apple of her eyes,

Kasiman as one of awesome dads in a thousand daddies

Faridah as one of super moms in a million mothers

Rose Diah Khasanah as one and only sister

# Motto

"Many highly intelligent people are poor thinkers. Many people of average intelligence are skilled thinkers. The power of the car is separate from the way the car is driven."

- Edward De Bono -

#### **ACKNOWLEGMENTS**

In the name of Allah, the most gracious and merciful, the kings of universe and space. Thanks to Allah because the writer could complete this thesis as one of requirements to get the title of Sarjana Pendidikan (S.Pd) in English Education Study Program of UIN Raden Fatah Palembang.

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The writer realizes that this work is still far from perfect, constructive criticism and suggestion are welcome to make this work. At least, may this thesis be useful for English teacher, linguists and students as well as to those who read the thesis.

Palembang, July 26<sup>th</sup>, 2017 The writer,

DF

#### **ABSTRACT**

This research aimed to describe the relationship between students' collocational knowledge and reading comprehension achievement. The method which was used in this research was correlational research. The population of the research was the undergraduate EFL students of English education study program of UIN Raden Fatah Palembang in academic year 2016/2017. The population are 455 students from four different semesters in this research. The sample was taken by using purposive sampling technique which consist of 102 students. There are two variables in this research. The first one was students' collocational knowledge (variable X) and the second one was students' reading comprehension achievement (variable Y). The students' collocational knowledge score was taken from the collmatch test whereas the student' reading comprehension achievement was taken from TOEFL test. Based on the data analysis, it was found that the r-obtained (-.048) was lower than r-table (0.195). Then the level of probability (p) significance (sig.2-tailed) was .631. It means that p (.631) was higher than (.05). It means that null hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. From the research finding, it can be concluded that there was no significant relationship between students' collocational knowledge and comprehension achievement. These results indicate that collocations are not the influential element in reading skills regardless of the reader's level for reading ability. The researcher assumed students' weaknesses in reading abilities, especially in reading comprehension caused by several aspects such as the lack of awareness in learning to read lessons and lack of motivation to improve reading comprehension.

Keywords: Collocational knowledge, reading comprehension achievement

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#### **CHAPTER I**

#### **INTRODUCTION**

This chapter presents (1.1) background, (1.2) the problems of the study, (1.3) the objectives of the study, and (1.4) the significance of the study.

## 1.1. Background

There have been a great number of different approaches to language learning, each with a different outlook on vocabulary (Richards & Rodgers, 2001; Jesa, 2008). In practice, grammar and pronunciation are at the core of language learning, while vocabulary is neglected in most foreign language classes (Fernández, Prahlad, Rubtsova, & Sabitov, 2009; Farghal & Obiedat, 1995). Nowadays, Morra and Camba (2009) claim it is widely accepted that vocabulary learning is one of the essential elements both of acquisition of one's native language and of learning a foreign language.

Learning vocabulary is seen as a key element to achieve a high level of proficiency in the target language by a large number of theoreticians (Boers & Lindstromberg, 2008). Also researchers, teachers and others involved in foreign language learning are paying special attention to foreign language vocabulary acquisition (Zu, 2009). McCrostie (2007) informs it is believed that having a large and varied vocabulary is the indicator of communicative competence and it is one of the important. For this reason, one of the most difficult tasks of foreign or second language learners is appropriately combining words. These combinations of words are referred to as "collocations". Collocations are recognized as a crucial part of language use

and distinguish native speakers and non-native speakers (Ellis, 2001; Fontenelle, 1994; Herbst, 1996; Koya, 2006; Lennon, 1996; Moon, 1992; Nation, 2001; Wouden, 1997).

Collocation also provides a good way to memorize new words. "Words which are naturally associated in context are learnt more easily than those not so associated; vocabulary is best learned in context; context alone is insufficient without deliberate association" (Nation, 2004, p.38). The context and the deliberate association including collocations provide connections that help learners to deeply understand a word's meaning and furthermore to add it to his or her current vocabulary. While giving a clue to memorize new words the method to learn words by collocations also instructs learners to use right words in right time and place. In contrast, without any awareness of collocation, learners will make up something not native or even unacceptable.

However, ESL/EFL learners have trouble with collocations. Learners in EFL settings typically have problem of lacking exposure to the target language and consequently, they are often not aware of the differences in collocational restrictions between the L1 and the L2. The gap between L1 and L2 interferes with learners' acquisition of collocations in the target language and might "even lead to lexical fossilization" (Vasiljevic, 2008, p. 3). Similarly, Chan and Liou (2005) explain that teaching of collocations in English foreign language classes have not got enough attention; as a result, students learning English as a foreign language are weak in collocation use. Additionallly, learning collocations is not easy for English as foreign

language learners. The other difficulty in learning collocations is that learners' knowledge of collocations does not expand in parallel with their knowledge of general vocabulary. Because of their relative transparency in meaning, collocations offer L2 learners little difficulty in terms of comprehension.

McNamara (2009) states that the most common and effective technique in obtaining knowledge is reading comprehension because someone does not only merely read but also must understand what they read about. In addition, Farrokh (2012) informs that English is full of collocations, recurrent combinations of words that co-occur more often than expected by chance. However, in comprehension the text book, some of the students conclude the texts by reading them as they are separate from every other words. Therefore, the students may not recognize the collocations as meaningful phrases, in which the condition would inhibit their understanding toward the certain text. In effect, the knowledge of collocation could help the comprehensive of such a passage.

Additionally, according to Hamra and Syatriana (2010), the improvement of reading comprehension of the students should be the focus of teaching and learning process in increasing the human quality. Students with good reading skills will influence the reading comprehension. In foreign language situations, where second language input sources are limited, reading becomes a viable means of developing second language ability (Gorsuch & Taguchi, 2010) which, in turn, can facilitate or hinder academic success for many foreign language learners across educational contexts (Taylor, Stevens, &

Asher, 2006). Besides that, the purpose of reading is students interact with the printed materials to get appropriate meaning (Ling, 2012). In this case, the readers have to observe, interpret, and evaluate the printed pages. The process of getting meaning may be different among readers because of the previous knowledge and the purpose of reading the texts.

Correspondingly, reading comprehension is to the ability to go beyond the words, to understand the ideas in a text and the relationships that exist between those ideas (McNamara, 2007). The main goal for reading is comprehension and everything else is a means to this end (Goldenberg, 2011; Loew, 1984). The key variables of reading comprehension include the reader as an active information processor, the activity of reading, and the text, all of which intersect to affect how well comprehension occurs (McIntyre, Hulan, & Layne, 2011), and therefore teaching English as a foreign language can be considered a delicate job in that teachers need to understand the nature of reading and teaching methodology on the one hand, and on the other hand, the nature of learners and the context in which teaching of reading takes place (Phakiti, 2006).

Unfortunately, Yuan (2009) declares that teachers expend more time and effort teaching reading and writing than they do teaching speaking and listening in the EFL classroom. The reading comprehension of Indonesian students' needs improvement (Kweldju, 2001, Syatriana, 1998; Mardiana, 1993; Hamra, 1993, 1996a, 1996b; Hamra & Syatriana, 2010); it is far from the expectation of the competency-based curriculum for higher education

(Competency-Based Curriculum, 2008). Behroozizad and Bakhtiyarzadeh (2012) consider the reading difficulties come from different sources: poor interpretation of the texts, poor vocabulary, the use of inappropriate reading strategies, and poor grammatical competence. Many EFL students failed to go to foreign universities because of the low score of their English proficiency test.

The test scores do not reach the minimal requirement of passing grade of the universities. Additionally, according to Hamra and Syatriana (2010), the improvement of reading comprehension of the students should be the focus of teaching and learning process in increasing the human quality. Students with good reading skills will influence the reading comprehension. In foreign language situations, where second language input sources are limited, reading becomes a viable means of developing second language ability (Gorsuch & Taguchi, 2010) which, in turn, can facilitate or hinder academic success for many foreign language learners across educational contexts (Taylor, Stevens, & Asher, 2006).

Beside that the purpose of reading is students interact with the printed materials to get appropriate meaning (Ling, 2012). In this case, the readers have to observe, interpret, and evaluate the printed pages. The process of getting meaning may be different among readers because of the previous knowledge and the purpose of reading the texts. Moreover, the key to developing proficient reading skills in the early years of education is an even earlier foundation in underlying language learning skills

(Brewster & Ellis, 2002). Therefore, strong reading comprehension skills are viewed as being dependent on the strength of the cognitive strategies established in the early years. Correspondingly, reading comprehension is the ability to go beyond the words, to understand the ideas in a text and the relationships that exist between those ideas (McNamara, 2007).

The main goal for reading is comprehension and everything else is a means to this end (Goldenberg, 2011; Loew, 1984). The key variables of reading comprehension include the reader as an active information processor, the activity of reading, and the text, all of which intersect to affect how well comprehension occurs (McIntyre, Hulan, & Layne, 2011), and therefore teaching English as a foreign language can be considered a delicate job in that teachers need to understand the nature of reading and teaching methodology on the one hand, and on the other hand, the nature of learners and the context in which teaching of reading takes place (Phakiti, 2006).

Because vocabulary and reading comprehension are playing fundamental role for university students' so the researcher writer research on those two aspects. First, the researcher did preliminary study which is taken by the informal interview. Based on the informal interview with the undergraduate EFL students of English Education Study Program of UIN Raden Fatah Palembang who have taken vocabulary class and all the reading courses, some of them were forgotten about collocation and types in collocation.

However, some students were satisfied with their reading score even though they still had difficulty to translate and understand some words on reading text especially for very long paragraph. Second, the research also did an observation of the result in reading section of TOEFL test for 44 students in English education study program. As the result, some of students' TOEFL score specifically on reading section are relative low because only 12.5% students who get good score. For this reason, the researcher conducted research in order to determine whether the collocation has relationship and influence to reading comprehension achievement.

#### 1.2. Problems of the Study

The problems to be discussed in this paper were summarized in the following research questions:

- 1. Is there any significant relationship between the students' collocational knowledge and their reading comprehension achievement?
- 2. Does students' collocational knowledge influence their reading comprehension achievement?

#### 1.3. Objectives of the Study

Given the research questions, the research paper is aimed as the following:

- Whether or not there is any significant relationship between the students' collocational knowledge and their reading comprehension achievement.
- 2. Whether or not students' collocational knowledge gives significant influence to their reading comprehension achievement.

## 1.4. Significance of the Study

It is hoped that this study can contribute to the theories of collocational knowledge, the theories of reading comprehension and the relation to the

language learning because the collocation is included as a part of vocabulary subject of the syllabus in language learning, especially in English for foreign language students. This research also presents the description between the collocational knowledge and reading comprehension achievement of undergraduate EFL students of English education study program in UIN Raden Fatah Palembang. Moreover, by learning collocation and reading, it may help learners to be aware of the role and significance of collocation to improve their reading.

The study hopefully can be beneficial for lecturers, especially those who teach vocabulary and reading courses. The result of the study can provide the problem and solution on teaching reading and vocabulary activities so that the objectives of the English teaching program especially reading and vocabulary goals can be achieved. The study will direct teachers' attention to focus on collocations, and it will present useful ways for teachers to implicate a better understanding of the nature of English collocations and their effect on reading skill. This research in the future will accord with rising research interests and alternative approaches to investigation. Furthermore, the finding of the study can be used by many others researcher who take another research design. So that they are able to explore and find new method of teaching and learning approach area in educational process.

#### **CHAPTER II**

#### LITERATURE REVIEW

This chapter is concerned with (2.1) the definition of collocation, (2.2) properties of collocation, (2.3) patterns of collocation, (2.4) types of collocation, (2.5) the definition of reading, (2.6) the definition of reading comprehension, (2.7) the concept of reading comprehension achievement, (2.8) previous related studies, (2.9) hypotheses, (2.10) criteria for testing hypotheses, and (2.11) research setting.

#### 2.1. The Definition of Collocation

Despite different definitions of collocation provided by different scholars, it seems to be still some disagreement over its definition. The term collocation was first introduced by Firth (1957) who is known as the father of collocation and he defined it as "the company that words keep". McIntosh, Ben and Richard (2009) define collocations as the way words combine in a language to produce natural sounding speech and writing. Shehata (2008) argues that the origin of the term collocation is the Latin verb "collocare", which means to set in order or to arrange.

In addition, Kim (2009) defines collocation is a word or group of words which frequently co-occurs with other specific word(s). Meanwhile, Widjaya and Imran (2009) state that collocation is collection of words that fits together. The term collocation has its origin in the Latin verb "collocate" which mean to set in order or to arrange (Martynska, 2004). For instance, in English it is proper to say *strong tea* but not *powerful tea*. Based on the

definitions above, the meaning of collocations used in this study is defined as follows: Collocations are natural combinations of words closely associated with each other and co-occurring frequently.

The criteria for determining collocation are the sense of the words is so specific that it can only combine with certain words and cannot be replaced by their syntactically and semantically possible choices. For example, *achieve result*; here achieve means to succeed in doing something or causing something to happen, usually after a lot of effort. In this sense, *results* and *agreements* are nouns which can be combine with *achieve*. The word *achieve* also cannot be replaced by its synonym *accomplish*.

#### 2.2. Properties of Collocation

Collocations whether unrestricted, semi-restricted or restricted have certain characteristics that often distinguish them from free-word combinations. McKeown and Radev (2006, p.3) argue that the *arbitrariness* of collocation captures the fact that substituting a synonym for one of the words in a collocational word pair may result in an infelicitous lexical combination. Native speakers may say *white paint* not \*white milk (the use of white with milk is a redundancy) and warm greeting not \*hot greeting. Moreover, Palmer (1984, p. 75) points out that some collocates are more arbitrary than others. For instance, native speakers of English may say:

Blonde hair	NOT	*blonde door (even if the colour of the door is actually
		blonde)
Pretty girl	NOT	*pretty boy (pretty relates to females rather than
		males)
Buxom woman	NOT	*buxom man (buxom relates to females not males)

Aitchison (2003, p. 85) argues that the collocations that are associated with different forms reflect different meanings of the word itself. The collocates of the singular noun-form *arm*, for example, are all physical things as they relate to parts of the body like *left*, *right* while those of the plural noun-form *arms* are non-physical like *control*, *nuclear*, *treaty* because they significantly relate to *weapons*.

In addition, Palmer (1984, p. 79) asserts that not all words that occur together frequently can form a collocation. Thus, the occurrence of *doctor* and *hospital* in an example like *a doctor works in a hospital* cannot create a reliable collocation. This is possibly because both *doctor* and *hospital* can be found to collocate more strongly with other items. Additionally, perhaps, that though such words occur in the same context, they do not necessarily follow the distance rule.

Moreover, several authors like Aitchison, 2003; McKeown and Radev, 2006; and Palmer, 1984 argue that a word is known by the company it keeps. This keeping company is part of the meaning of a word. By looking at the linguistic contexts of words, different meanings can be distinguished, like the use of *chair* in these collocations: *he sat in a chair; the vice manager will chair the meeting; she holds a university chair.* 

#### 2.3 Patterns of Collocation

The most common pattern of collocations are classified in the following two table according to Lewis (2000, p. 33) and McCarthy and O'Dell (2005, p. 12) cited in Mounya (2010, p.18):

Table 1
Collocation Pattern According to Lewis

Pattern	Example
Adjective + Noun	A difficult decision
Verb + Noun	Submit a report
Noun + Noun	Radio Station
Verb + Adverb	Examine Thoroughly
Adverb + Adjective	Extremely inconvenient
Verb + Adjective + Noun	Revise the original plan
Noun + Verb	The flog closed in

Table 2
Collocation Pattern According to McCarthy and O'Dell

concession recording to the current white con-		
Pattern	Example	
Adjective + noun	Bright color	
Noun + verb	The economy boomed	
Noun + noun	A sense of pride	
Verb + preposition + noun	Filled with horror	
Verb + adverb	Smiled proudly	
Adverb + adjective	Happily married	

The five parts of speech such as noun, adjective, adverb, verb and preposition could be combined to compose collocations. It is observed that Michael Lewis' patterns are nearly similar to McCarthy and O'Dell's ones. As shown in the two tables above, the writer noticed that in both classification there are the following patterns; *adjective* + *noun*, *noun* + *noun*, *verb* + *adverb*, *noun* + *verb* and *adverb* + *adjective*.

However, in the first classification, there is the pattern verb + adjective + noun while in the second one there is; verb + preposition + noun. In the second tables the pattern verb + noun is not found whereas in the first one we find both patterns: verb + noun and noun + verb. As a result, it can be decided a new classification from the two tables mentioned above by including all the patterns with the same examples as follows:

Table 3
Collocations' Pattern According to McCarthy, O'Dell and Lewis

Pattern	Example
Adjective + noun	Bright color
Noun + verb	The fog closed in
Verb + noun	Submit a report
Noun + noun	Radio station
Adverb + adjective	Happily married
Verb + adverb	Examine thoroughly
Verb + adjective + noun	Revise the original plan

In the table above is found seven patterns of collocations. In these patterns, the focus is on the main part of speech such as verbs, nouns, adverbs and adjectives because articles, pronouns and prepositions are not apparent in the patterns. For instance, in the last example the definition article "the" are not included in the patterns. It is used for defining noun so that including or deleting it from the pattern would not make any difference. Pronouns are not included because they are always changing different pronouns with different verbs.

## 2.4 Types of Collocation

According to *The BBI Combinatory Dictionary of English* (2009), grammatical collocations consist of a dominant word (noun, adjective, and verb) and a preposition or a grammatical construction. On the other hand, lexical collocations do not contain a dominant word. Collocations are classified in a variety of ways according to each scholar.

Lewis (2000) listed as many as twenty different types of collocations according to the co-occurrence of words. Moreover, The BBI Combinatory Dictionary of English, Benson, Benson, and Ilson (2009) divided collocations

into two large categories: lexical collocations in table 4 and grammatical collocations in table 5 and table 6. Then, they presented the types of each category. This study follows the classification of collocations in *The BBI Combinatory Dictionary of English* (2009).

Moreover, prepositional verbs such as *apply for* and phrasal prepositional verbs such as *cut down on* are included in the phrasal verb category since in *Longman Dictionary of Language Teaching & Applied Linguistics* (2002), the term 'phrasal verb' is used to include both prepositional verb and phrasal-prepositional verb nowadays.

In addition to the types of collocations in *The BBI Combinatory Dictionary* of English (2009), fixed phrases that are included in the dictionary but do not fit into any of type of grammatical and lexical collocations are also considered one of the collocation types. Fixed phrases are classified as neither grammatical collocations nor lexical collocations but are counted in the total number of collocations. Moreover, three types of phrasal verbs, verb + preposition, verb + adverb, and compound verb + preposition, are classified as grammatical collocations.

Table 4
Types of Lexical Collocations (L1 – L6)

Type	Form	Example
L1	verb + noun	have a conflict
L2	adjective + noun	bitter enemy
L3	noun + verb	alarms go off
L4	noun of noun	parts of our lives
L5	adverb + adjective	strictly accurate
L6	verb + adverb	write simply

(Source: The BBI Combinatory Dictionary of English (2009, p. 19-34))

Table 5
Types of Grammatical Collocations (G1-G7)

-JP ( )		
Type	Form	Example
G1	Noun + preposition	Argument with
G2	Noun + to infinitive	A pleasure to do
G3	Noun + that clause	An arrangement that
G4	Preposition + noun	By accident
G5	Adjective + preposition	Angry at
G6	Adjective + to infinitive	She was happy to meet him
G7	Adjective + that clause	I was afraid that I would fail the exam

(Source: The BBI Combinatory Dictionary of English (2009, p. 19-34))

Table 6
Types of Grammatical Collocations (G8: verb patterns)

Form	Example
1. SVO to O (or) SVOO	He sent me the book.
2. SVO to O	He sent the book to me.
3. SVO for O (or) SVOO	She bought a shirt for him.
4. SV prep. O (or) SVO prep. O	We will adhere to the plan.
5. SV to infinitive	Want to
6. SV infinitive without to	Must study
7. SV gerund (- ing)	Enjoy studying
8. SVO to infinitive	Ask her to do
9. SVO infinitive without to	Let him do
10. SVO gerund (- ing)	Keep me waiting
16. SV(O) adverbial	He carried himself with dignity.
17. SV(O) wh-word(including whether, if)	I want to see if
18. S(It)VO to infinitive (or) that clause	It surprised me to (or) that
19. Intransitive verb + predictable noun (or)	She became an engineer.
adjective	She feels good.

(Source: The BBI Combinatory Dictionary of English (2009, p. 23-30))

In addition, in their classification, phrasal verbs belong to grammatical collocations. Table 5 shows the grammatical collocation types: from G1 to G7. Table 6 shows the grammatical collocation type G8. As shown in Table 6, grammatical collocation type G8 has nineteen different verb patterns.

## 2.5 The Definition of Reading

Reading is one of the main language skills. Alyousef (2005, p.144) states that reading can be seen as an interactive process between a reader and a text

which leads to automaticity or reading influence. The reader interacts with the text to construct meaning. Further, he states in the process of reading, various kinds of knowledge are being used: linguistic or systematic knowledge through bottom-up processing as well as schematic knowledge through top-down processing. It means that reading is a complex process which a reader needs to construct and interpret this text to be a meaningful information.

The ability of constructing and interpreting the meaning is defined as a process of comprehending. Since the main purpose of reading is to get information, the readers have to draw meaning from the text. Grabe and Stoller (2013) define reading is the ability to draw meaning from the printed page and interpret this information appropriately. In addition, Anderson (2002, p.1) classifies the skills in reading as follow:

- Constructive: learning to reason about written material using knowledge from everyday life and from disciplined fields of study
- 2. Fluent: mastery of basic process to the point where they are automatic so that attention is freed for the analysis of meaning
- 3. Strategic: controlling one's reading in relation to one's purpose, the nature of the material and whether one is comprehending
- 4. Motivated: able to sustain attention and learning that written material can be interesting and informative
- 5. A lifelong pursuit: continuous practices, development, and refinement

  Shortly, reading is a process to connect the interpretation of what the readers have with the ideas in the text itself. In every reading text whether it

is written or printed, there is information or message that is going to be delivered from the writer to the reader.

#### 2.6 The Definition of Reading Comprehension

Caldwell (2008, p.5) defines comprehension is the ability to understand completely and be familiar with a situation, facts, etc. Comprehension is not a single unitary process. It starts from the moving of words on the page to meaning in the mind, the recognizing of individual words by using memory and knowledge of letter and sound patterns, matching the resulting pronunciations to meaning, and finally connects these words into idea units.

Furthermore, reading is a complex cognitive process in which a reader decodes the symbols or printed messages into sounds (Grabe & Stoller, 2002), while, reading comprehension is a vigorous process of constructing meaning from a piece of text and understanding it effusively and comprehensively (Nakamoto, Lindsey, & Manis, 2008). Similarly, reading comprehension is a complex interaction among automatic and strategic cognitive processes that enables the reader to create a mental representation of the text (Broek & Espin, 2012). Lems (2010) concludes that reading comprehension is not a static competency. It depends on reader's purpose to read and reader's basic knowledge with the text in used. In addition, the role of strategies helps the reading comprehension achieved.

In line with the statements above, Wiggens and McTighe (2005) concludes six facets of understanding or comprehension. The first is explanation or understanding of why and how. The second facet is

interpretation. The third facet is application or the ability to use knowledge in new situations and contexts. The fourth facet is perspective. The fifth facet is empathy for the feelings and views of others. The sixth facet is self-knowledge. Thus, it can be concluded that comprehension is the ability to get enlightenment on something through several steps in process.

Based on those definitions above, reading is an important activity used in learning process, but it becomes more useful when the readers can comprehend what they read. Overall, reading comprehension can be concluded as the ability to understand the meaning or idea in the written text completely and chronically. Even though reading comprehension has long process, what the readers get are comparable with the process itself.

#### 2.7 The Concept of Reading Comprehension Achievement

In general, achievement itself can be defined as the result of what people have done. It usually proves through several things. For students, their achievement is shown by their final score. According to Hornby (2005, p. 12), achievement is a thing that somebody has done successfully, especially using their own effort and skill. It means that to achieve something students do it by using their skills.

In reading process, to get a good reading achievement, students need a skill such as comprehension. Reading comprehension skill means that students are able to interpret and construct the ideas and meaning from what they read. The reading achievement surely influenced by several predictors, such as; (1) intellectual and sensory capacities, (2) positive expectations about and

experiences with literacy from an early age, (3) support for reading-related activities and attitudes so that he or she is prepared to benefit from early literacy experiences and subsequent formal instruction in school, and (4) instructional environments conducive to learning.

#### 2.8 Previous Related Studies

Numerous studies have tried to measure learners' collocation knowledge (Aghbar, 1990; AI-Zaharni, 1998; Bahns & Eldaw, 1993; Farghal & Obiedat, 1995), and their common results were that EFL learners were lacking collocation knowledge. Although numerous studies have examined EFL or ESL learners' collocation competence, not many studies have done that deal with second language learners' collocation competence with respect to a *specific* language skill.

As one of the first researchers to do so, Ahn (2009) investigated EFL students' use of collocations by using their reading and writing. Ahn used the reading comprehension section of TOEFL, evaluated the participants' general reading ability, and divided them into two groups. Then, the students wrote four summaries of the reading materials from their textbook. Ahn analyzed lexical and grammatical collocations within the students' summaries and found that the more proficient readers used a greater variety of lexical collocations than the less proficient ones. However, Ahn did not examine the relationship of learners' collocation competence to their writing ability.

There have been studies that examined the effect of collocation-based instruction. Oh (2004) investigated the relationship between vocabulary

teaching that focused on collocations and reading ability. No significant correlation was found between collocation knowledge and reading ability.

Kim & Bae (2012) examined the relationship of collocation competence with reading and writing skills. 86 Korean university students were given a collocation knowledge test, followed by a reading test and writing test. They concluded that the students' reading performance had no significant relationship with any of these collocation types. In contrast, there were weak relationships between the overall writing quality and collocation use.

Lee (2009) investigated the effects of collocation-based English vocabulary instruction on the four language skills (listening, reading, writing, and speaking) with Korean middle school students. Lee found that the effect of collocation based instruction was less significant on receptive skills (listening and reading) while more obvious in productive skills (speaking and writing).

Hsu (2010) conducted a study to examine the effects of direct collocation instruction on Taiwanese college English majors' reading comprehension and vocabulary learning. He found that direct collocation instruction developed the participants' vocabulary learning and advanced retention. Moreover, he proposed that collocation instruction could be useful to explore as a teaching option.

Kiaee, Moghaddam, and Hosseini (2013) conducted a quasi-experimental study to examine the effects of collocation instruction on enhancing Iranian EFL learners' reading comprehension. Two intact classes were randomly

selected as the experimental group and two other classes were selected as the control group. 30 collocations selected from each reading text were taught to the students in the experimental group. Results of paired-sample t-test indicated that the students in the experimental group performed better than the control group in reading comprehension. In fact, teaching collocations could play a significant role in enhancing EFL learners' reading comprehension.

In another study, Rahimi and Momeni (2012) investigated the effect of teaching collocations on English language proficiency. The participants of the study were sixty Iranian pre-university students, who were majored in the field of mathematic. The findings of the study revealed that the experimental group had a better performance than the control group. Finally, it was reported that teaching collocations has a positive effect on students' language proficiency.

Yazdandoost, AmalSaleh, and Kafipour (2010) explore the relationship among knowledge of collocation and reading, writing, speaking and listening proficiency of Iranian EFL students. To this end, 50 students involved in the study took a test of both lexical and grammatical collocations to measure their collocational knowledge, first. Then, an IELTS sample test (IELTS Practice Plus Pearson Education Longman University, Version two) was administered in order to find the students' reading, writing, speaking and listening proficiency. This research confirmed the influential role of collocation knowledge in essential language learning.

In sum, as the above review indicated, collocation plays an important role in the process of language learning and teaching. It is very important for EFL learners to improve their fluency, and enhance their communicative competence. Knowing the importance of collocation in all four language skills is advantageous in finding new ways and strategies to improve the student's language proficiency. As shown above, much research has been conducted on the impact of collocation on EFL/ESL learners' language learning; some of them are conducted to find common collocational errors that language learners make; some other studies have been conducted to focus on the relationship between collocations and language proficiency; however, to the best of the researchers' knowledge little empirical research has been conducted on its contribution to four language skills.

#### 2.9 Research Setting

The writer conducted her research at UIN Raden Fatah Palembang that was located on Jalan Prof. K.H. Zainal Abidin Fikri KM. 3.5, Pahlawan, Kemuning, Kota Palembang, Sumatera Selatan 30126. The present rector of UIN Raden Fatah Palembang is Prof. Drs. H. Sirozi, MA.Ph.D. The first vice chancellor is Dr. Ismail Sukardi, M.Ag. The second vice chancellor is Dr. Zainal Berlian, MM., DBA. The third vice chancellor is Dr. Rr. Rina Antasari, M.Hum.

# 2.9.1 History of UIN Raden Fatah Palembang

State Islamic Institute (IAIN) Raden Fatah Palembang was inaugurated on 13 November 1964. At the House of Representatives of South Sumatra Province. Based on Decree of the Minister of Religious Affairs No. 7 of 1964 dated October 22, 1964. The origins of IAIN Raden Fatah are closely related to the presence of Islamic higher education institutions in South Sumatra with IAIN Sunan Kalijaga in Yogyakarta and IAIN Syarif Hidayatullah in Jakarta. The embryo of IAIN was originally conceived by three scholars, namely K.H.A. Rashid Sidik, K.H. Husin Abdul Mu'in and K.H. Siddik Adim during the muktamar Ulama se Indonesia in Palembang in 1957. The idea received wide acceptance from both the government and participants of the conference.

On the last day of the congress, September 11, 1957, the inauguration of the establishment of the Faculty of Islamic Law and Community Knowledge, chaired by K.H. A. Gani Sindang Muchtar Effendi as Secretary. A year later, the foundation of the Islamic University of South Sumatra (Notary Deed No. 49 dated July 16, 1958), whose board consisted of Government Officials, clerics and public figures.

In 1975 s.d in 1995 IAIN Raden Fatah has 5 Faculties, three Faculties in Palembang, namely Faculty of Sharia, Faculty of Tarbiyah and Faculty of Ushuluddin; and two Faculties in Bengkulu, namely Ushuluddin Faculty at Curup and Faculty of Sharia in Bengkulu. In line with government policy in the effort of institutional development of Islamic religious college, on 30 June 1997, each of the two Faculties was upgraded to State Islamic High School (STAIN), namely STAIN Curup and STAIN Bengkulu.

In the next development IAIN Raden Fatah opened two new Faculty, the Faculty of Adab and the Faculty of Da'wah based on the Decree of the

Minister of Religious Affairs No. 103 of 1998 dated February 27, 1998. The embryo of Adab Faculty started from the opening and admission of the students of the Language and Literature Study Program Arabic and History of Islamic Culture in the Academic Year 1995/1996.

The establishment of the Graduate Program in 2000 confirmed IAIN Raden Fatah as an educational institution committed to the enlightenment of an academic society that always wanted to continue to draw and develop the multidisciplinary Islamic sciences. In addition, this university has nine faculties and one postgraduate program.

There are Faculty of Sharia and Law, Faculty of Ushuluddin and Islamic Thought, Faculty of Tarbiyah and Teacher Training, Faculty of Adab and Humanities, Faculty of Da'wa and Communication, Faculty of Economics and Islamic Business, Faculty of Science and Technology, Faculty of Social Science and Political Science, Faculty of Psychology and Postgraduate program.

## 2.9.2 Vision of UIN Raden Fatah Palembang

"Being an International Standard, Nationalized, and Islamic Character"

## 2.9.3 Missions of UIN Raden Fatah Palembang

- Bore a scholar and academic community committed to quality, religious, and scholarship.
- Develop Tri Dharma activities in line with the development of science and technology, relevant to the needs of the nation, and based on an integralistic tradition of Islamic scholarship.

3. Developing a universal, honest, objective, and responsible academic tradition.

#### 2.9.4 Goals of UIN Raden Fatah Palembang

- Provide greater access to education for the community, in order to increase the Higher Education Participation Rate.
- 2. Produce competitive human resources, professional, skilled, morality, and integrity.
- 3. Produce academic works that are useful for improving the quality of life of the community.

This objective is in accordance with IAIN's principal duty stipulated in Government Regulation no. 33/1985, namely "to organize education and teaching above middle-level universities based on Indonesian culture and to scientifically educate people in the field of Islamic religious knowledge in accordance with applicable legislation."

The objectives are broken down into: (1) existential objectives, ie providing educational and Islamic teaching at the university level as well as becoming a center for deepening and developing Islamic religious knowledge. (2). The institutional objective of establishing a Muslim scholar who is an expert in Islamic religious sciences and other related sciences, who is pious and noble, capable and skilled and responsible for the welfare of people, nations and nations.

#### 2.9.5 Vision of English Education Study Program

Becoming a healthy and quality study program and able to produce a professional English education graduate, Islamic character, integrate, and have an international reputation in 2022.

## 2.9.6 Missions of English Education Study Program

- 1. Organizing and developing a professional English education and quality.
- Developing research science education and teaching English relevant to the needs of the community.
- 3. Preparing a bachelor of English education professional, Islamic character, and integrity, and have an international reputation.
- 4. Developing community service that is more proactive and participatory in accordance with competence and capacity related to English education.
- 5. Developing cooperation network or partnership with other institutions at home and abroad
- Developing and maintaining values, and academic morale for quality control of English education study program

## 2.9.7 Goal of English Education Study Program

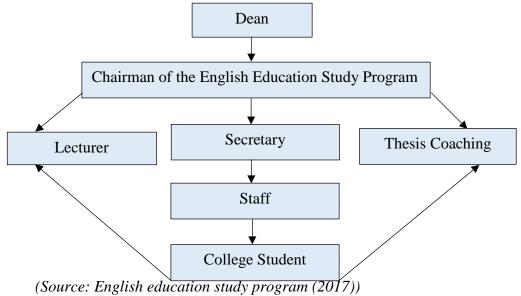
Producing a bachelor of English education that is professional, has an Islamic character, and has integrity and has an international reputation that is able to answer the problems and needs of the community related to English education.

## 2.9.8 Permanent Lecturer Data of English Education Study Program

No	Lecturer Complete Name	Educational Background
1.		S1 Universitas Swrijaya
	Dr. Dian Erlina, S.Pd., M.Hum	S2 Universitas Gadjah Mada
		S3 Universitas Negeri Jakarta
2.		S1 Universitas Swrijaya
	Dr. Dewi Warna, M.Pd	S2 Universitas Swrijaya
		S3 Universitas Negeri Jakarta
3.	D. H.: 1.M.	S1 Universitas Swrijaya
	Drs. Herizal, M.A	S2 University of Canberra Australia
4.		S1 Universitas Swrijaya
	Renny Kurnia Sari, M.Pd	S2 Universitas Swrijaya
5.		
J.	Dr. Annisa Astrid, M.Pd	S2 Universitas Swrijaya
	,	S3 Univeritas Semarang
6.	II' I M I' MDI	S1 Universitas Swrijaya
	Hj. Lenny Marzulina, M.Pd	S2 Universitas Swrijaya
7.	M Halandard MDI	S1 Universitas PGRI
	M. Holandyah, M.Pd	S1 Universitas PGRI
8.	Amalia Hasanah M Dd	S1 Universitas Padjajaran
	Amalia Hasanah, M.Pd	S2 Universitas Swrijaya
9.	Manalulaili, S.Pd, M.Ed	S1 Universitas Swrijaya
	Mananani, S.I u, M.Eu	S2 University of Flinders
10.		S1 Universitas Swrijaya
	Roma Nur Asnita, M.Pd	S2 Universitas Swrijaya
		S3 Universitas Negeri Jakarta

11.	Eka Sartika, M.Pd	S1 Universitas PGRI S2 Universitas Swrijaya		
12.	Beni Wijaya, M.Pd	S1 Universitas Swrijaya S2 Universitas Swrijaya		
13.	Nova Lingga Pitaloka, M.Pd	S1 Universitas Swrijaya S2 Universitas Swrijaya		
14.	Winny Agustia Riznanda, M.Pd	S1 Universitas Swrijaya S2 Universitas Swrijaya		

## 2.9.9 Organizational Structure of English Education Study Program



## 2.9.10 Facility in English Education Study Program

No.	Facility	Total
1	Classroom	5 rooms
2	Air Conditioner	5 items
3	Toilet	5 rooms
4	Islamic Prayer Room	1 room
5	English Laboratory	1 room

## 2.10 Hypotheses

The hypotheses of this study are proposed in the forms of null and research hypotheses below:

- Ho: There is no significant relationship between students' collocational knowledge and their reading comprehension achievement.
  - H1: There is a significant relationship between students' collocational knowledge and their reading comprehension achievement.
- 2. Ho: There is no influence between students' collocational knowledge and their reading comprehension achievement.
  - H1: There is an influence between students' collocational knowledge and their reading comprehension achievement.

## 2.11 Criteria for Testing Hypotheses

To test the hypotheses above, the researcher will use these criterions;

- 1. If p- value is higher than 0.05 (p > 0.05), the level significance is 5%. Ho is accepted and H<sub>1</sub> is rejected.
- 2. If p- value is less than 0.05 (p < 0.05), the level significance is 5%, Ho is rejected and H1 is accepted.

#### **CHAPTER III**

#### RESEARCH METHODOLOGY

This chapter describes (3.1) the method of research, (3.2) research variables, (3.3) operational definition, (3.4) subject of the study, (3.5) data collection, (3.6) research instrument analysis, and (3.7) data analysis.

#### 3.1 The Method of Research

In this study, the researcher used correlation research design. In correlational research designs, investigators use the correlation statistical test to describe and measure the degree of association (or relationship) between two or more variables or sets of scores (Creswell, 2012, p. 338). In this design, the researchers do not attempt to control or manipulate the variables as in an experiment; instead, they relate, using the correlation statistic, two or more scores for each person.

In this research design, there is correlation coefficient, which is a numerical index that provides information about the strength and direction of the relationship between two variables. It provides information how variables are associated. More specifically correlation coefficient is a measure of correlation strength and can range from -1.00 to +1.00, with zero standing for no correlation at all. For this reason, there would be two possible results of this correlational study; there is correlation and there is no correlation.

The research focused in the notion of explanatory and prediction research design. In order to find out the correlation between variables and explain and interpret the results will be found. However, the process would be that, first;

the researcher identified the students' collocational knowledge by using collocation test. Second, by using reading comprehension test, the students' reading comprehension achievement will be acquired. The next process that the researcher discovered the relationship among variables through SPSS based on the results of the collocation test and reading comprehension test and it also included the influence of the variables. The research design is as follows:



X = Students' Collocational Knowledge

Y = Students' Reading Comprehension Achievement

#### 3.2 Research Variables

A common and useful way to think about variables is to classify them as independent or dependent. Independent variable is what the researcher chooses to study in order to assess their possible effect(s) on one or more other variables. The variable that the independent variable is presumed to affect is called a dependent variable. In commonsense terms, the dependent variable depends on what the independent variable does to it, how it affects it. It is possible to investigate more than one independent (and also more than one dependent) variable in a study (Fraenkel, Wallen & Hyun, 2012, p.80).

Similarly, a variable is defined as something that varies from one case to another. The dependent variable is variable which one observes and measures to determine the effect of the independent variable. Independent variable the major variable is the variable which is selected manipulated and measured by the researcher (Suharsimi, 2002, p. 98). In this study, the independent variable is collocational knowledge of undergraduate EFL students of English education study program of Islamic State University Raden Fatah Palembang and reading comprehension achievement is their dependent variable.

## 3.3 Operational Definitions

In this research, the researcher presents operational definition. The operational definition provides a concrete description of the variable. The definitions of each session are offered to give the information related to the title of this study.

Collocational Knowledge refers to student's familiarity of lexical collocation. Their lexical knowledge of collocation will be determined from the questionnaire that they will answer. Furthermore, to determine the knowledge level of the students, the result was based on the criteria made by Harris (1969, p.134) who classifies the range of scores with its probable class performance. The classification is as follow:

TABLE 7
Distribution of Collocational Knowledge Score

No	Test Scores Probable Class Performance					
1	80-100	Excellent				
2	60-79	60-79 Good				
3	50-59	Average				
4	0-49	Poor				

Reading comprehension achievement refers to the score that was obtained from the students' reading comprehension test on the given topic. The test is in form of the objective test that includes multiple choice. The following is the category of the students' reading comprehension achievement form.

TABLE 8
Distribution of Reading Comprehension Score

No	Score Interval	Category
1	80 - 100	Very Good
2	70 - 79	Good
3	60 - 69	Average
4	56 - 59	Poor
5	≤ 55	Very Poor

(Source: score interval of English Education Study Program)

## 3. 4. Subject of the Study

## 3.4.1. Population

Population is the larger group to which one hopes to apply the results. (Fraenkel et al., 2012, p.91). The population of this study is all the active students of English Education Study Program of Islamic State University Raden Fatah in the academic year 2016-2017. It consists of four semesters that have different number of students from each semester. The distribution of population of the research can be seen below.

**TABLE 9 Distribution of Population** 

No	Semester	Number of Students
1	I	152
2	III	128
3	V	102
4	VII	73
	Total	455

(Source: English Education Study Program, Academic Year 2016-2017)

#### **3.4.2. Sample**

In this study, the sample will be taken by using purposive sampling technique. Purposive sampling (judgmental sampling) is used in both qualitative and quantitative research (Johnson & Christensen, 2012, p. 235). Based on Creswell (2005, p. 204), in this method, the researchers intentionally

select individuals and sites to learn and understand the central phenomenon whether they are "information rich". Moreover, purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available but rather use their judgment to select a sample that they believe, based on prior information, will provide the data they need. (Fraenkel et al., 2012, p. 100).

In this study, the student's collocational knowledge and their reading comprehension achievement were correlated. Consequently, all of students who have already taken vocabulary and all the reading courses (Reading I, Reading II, Reading IV and Extensive Reading) from the population has considered as the sample. In effect, the researcher took the fifth semester students from population into the sample, because the seventh semester students were not active in campus during their teaching training program.

TABLE 10 Distribution of Sample

No	Semester VI	Male	Female	Number of Students
1	PBI A	10	16	26
2	PBI B	7	15	22
3	PBI C	4	22	26
4	PBI D	3	25	28
	Total	102		

(Source: Documentation of Administration Staff, 2016)

#### 3.5 Data Collection

In collecting the data, the researcher has collected the data by conducting two instruments which was divided into collocation test and reading comprehension test. From the statement above, the researcher used collocation test to accumulate the student's collocational knowledge and multiple choices of questions to compile the data for reading comprehension achievement.

#### 3.5.1 Collocation Test

The collocation test in the format henceforth called collmatch (collocate matching) is designed by Gillstad (2007). A test taker is asked to identify word combinations which are believed to be frequently occurring combinations in English, whereas non-existing combinations are to be rejected. Identifying a word combinations as existing is done by ticking the "yes" box, and a rejection is made through the ticking of the "no" box.

In collmatch, a correctly identified real collocation was awarded 2.5 points, whereas a missed real collocation received 0 point. Conversely, a correctly rejected pseudo-collocation was awarded 2.5 point, whereas an incorrectly ticked pseudo-collocation received 0 point. Those 40 examples of collocation consist lexical collocation. For this reason, the students answered the question for 35 minutes.

#### 3.5.2 Reading Comprehension Test

The reading test is adapted from Cliffs TOEFL Preparation Guide (Pyle, A., M., & Page, M., E., M., 2008, p. 451-462, 485-489). This test consists 50 questions of multiple choice items. The student will answer the question about 55 minutes. Correct answer is scored 2.5 and wrong answer is scored

0. Since there are 50 questions in this test, the highest score is 100 and the lowest one is 0.

Additionally, the multiple choices test is chosen because it is intended at getting scoring quickly and without any judgment and subjectivity (Maskar, 2008). Furthermore, multiple choice test type is economical in term of number of items that can be answered in a short period of testing time. Then, student's test papers can be easily and quickly scored. Since the correct answers are limited in number objectives, this test type will not make examiners have different interpretation of the students' test paper.

TABLE 11
Table of Specification for Reading Comprehension Achievement

No	Reading Comprehension Test Items	Items Number	Number of Items
1	Main Idea (MI)	19, 29, 37, 38	4
2	Detail (D)	1, 9, 16, 17, 18, 20, 25, 26, 40, 43, 49	11
3	Sequence (Seq)	13	1
4	Inference (Inf)	2, 4, 6, 8, 14, 24, 31, 32, 33, 35, 39, 47	12
5	Cause and Effect (C/E)	10, 23, 36, 50	4
6	Vocabulary (V)	3, 5, 7, 11, 12, 15, 21, 22, 27, 28, 30, 34, 41, 42, 44, 45, 46, 48	18
	50		

#### 3.6 Research Instrument Analysis

## 3.6.1 Validity Test

Validity is based on the view that it is essentially a demonstration that a particular instrument in fact measures what it purposes to measure, whether

it represents the content, whether it is appropriate for the sample and whether it is comprehensive enough to collect all the information needed (Radhakrishna, 2007).

To fulfill the validity of the instrument, it is necessary to consider some questions, e.g. whether the test measures what it intended to measure, whether it represents the content, whether it is appropriate for the sample, whether it is comprehensive enough to collect all the information needed and whether the instrument looks like a test or not. For this reason, the researcher analyzed content validity to collocational test and reading comprehension achievement test.

## 3.6.1.1 Content Validity

Content validity refers to the content and format of the instrument. Content validation, therefore, is partly a matter of determining if the content that the instrument contains is an adequate sample of the domain of content it is supposed to represent. The other aspect of content validation has to do with the format of the instrument. This includes such things as the clarity of printing, size of type, adequacy of work space (if needed), appropriateness of language, clarity of directions, and so on (Fraenkel, Wallen & Hyun, 2012, p.150). The content validity was used in order to find out the validity of the collocation test and reading comprehension test by having expert judgment and try out. There were three judges who can be expected to render an intelligent judgment about the adequacy of the instrument. Additionally, three judges evaluated five indicators of reading comprehension test.

First, the test is relevant to a given area of language content or language ability. Second, the test is appropriate of the instrument format. Third, the total number of test item is an adequate representation of the total domain of content covered by the variable being measured. Fourth, the test performance applicable to university students. Fifth, items quality on the level of difficulty of each item are convenient. Each judge gave tick in four agreements, there are strongly agree, agree, disagree, and strongly agree for each aspect. If the result of validation aspect is among agree to strongly agree, it means that the collocation test and reading comprehension test is valid.

Additionally, in testing validity of the collocation test, the researcher tried it out to the students that are not the target for the study, but they are still at the same level and the same generation. Moreover, the researcher chose the fifth semester of undergraduate EFL students of Sriwijaya University in Palembang. This is because Sriwijaya University and UIN Raden Fatah are two of state universities in Palembang. The try-out of test was carried out on November 28<sup>th</sup>, 2016 at 10:30-12:00 am. The research instruments of the test were tested to 32 students. Furthermore, the result of the tried-out test was analyzed by using the formula from SPSS version 22 and counting the Corrected Item-Total Correlation.

#### 3.6.1.1.1.Collocation Test

Based on the results of the assessment of the three experts who provide assessment agree to strongly agree on five indicators in the collocation test then the test can be declared valid for sample. There were 100 questions that

given to the students. According to Natanael and Sufren (2014, p. 56), the item is declared valid have to qualify corrected item – total correlation above or equal to 0,2. In addition, after the try out test results that there were 49 questions item valid. The valid items were number 1, 2, 5, 7, 10, 16, 21, 25, 26, 27, 28, 30, 31, 32, 33, 35, 36, 37, 38, 41, 43, 46, 48, 49, 50, 51, 52, 53, 54, 56, 57, 59, 61, 62, 69, 70, 71, 78, 80, 82, 84, 85, 86, 88, 89, 90, 93, 95 and 98. Then, there were 51 invalid questions item. They are questions item number 3, 4, 6, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 29, 34, 39, 40, 42, 44, 45, 47, 55, 58, 60, 63, 64, 65, 66, 67, 68, 72, 73, 74, 75, 76, 77, 79, 81, 83, 87, 91, 92, 94, 96, 97, 99, and 100. In effect, the researcher took 40 valid question items for collecting the data. The result analysis of validity test in each questions item was displayed in appendix 3.

### 3.6.1.1.2.Reading Comprehension Test

There were three judges that had intelligent judgment about the adequacy of the instrument. Additionally, three judges evaluated five indicators of reading comprehension test. Because each judge gave tick agree to strongly agree for five aspects so that the reading comprehension test were valid. Correspondingly, the try out test result evidenced that there were 50 valid questions. The valid items were number 3, 7, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 54, 55, 56, 57, 59, 60, 61, 62, 65, 66, 67, 69, and 70. Then, there were 20 invalid questions item. They are questions item number 1, 2, 4, 5, 6, 8, 9, 11, 25, 34, 38, 39, 49, 50, 52, 53, 58, 63, 64 and 68.

As a result, the researcher took 40 valid question for collecting the data. The result analysis of validity test in each questions item was displayed in appendix 6.

#### 3.6.2 Reliability Test

The researcher did reliability test in this research. Reliability has to do with the stability of scores for the same individuals. If the scores of students are stable the test is reliable; if the scores tend to fluctuate for no apparent reason, the test is unreliable. Fraenkel, Wallen, and Hyun (2012, p. 157) state that for research purposes, a useful rule of thumb is that reliability should be at least .70 and preferably higher.

## 3.6.2.1 Alpha Coefficient.

Fraenkel, Wallen, and Hyun (2012, p. 158) state another checks on the internal consistency of an instrument is to calculate an alpha coefficient (frequently called Cronbach alpha after the man who developed it). For this reason, the researcher used a reliability coefficient of internal consistency to collocational test and reading comprehension achievement test. Internal consistency allows the researcher to compute a reliability estimate based on just one test administration. The specific type of coefficient was used Cronbach Alpha.

The collocation and reading comprehension try out test were analyzed by using SPSS (Statistical Product and Service Solution) version 22. The reliability coefficient for collocation test was 0,790 and the reliability coefficient for reading comprehension test was 0,863. So, it can be assumed

that collocation test and reading comprehension test was considered reliable for this study. The result of the test was described in appendix 7.

#### 3.6.3 Readability Test

The researcher applied Computer Generated Readability Scores to find out the level of ease or difficulty with which text material can be understood by a particular reader who is reading that text for a specific purpose. Likewise, the purpose of readability assessment is to effects a 'best match' between intended readers and texts. Thus, optimal difficulty comes from an interaction among the text, the reader, and his/her purpose for reading (Chall & Dale, 1995, p. 45-46).

Readability test can be measured using readability test online in http://www.readabilityformulas.com. Then, the category of the texts are put in the description of the readability table including text statistics, Flesch Reading Ease score, and text level. In this study there are 6 reading texts with the different type of each text. Types of passage are descriptive text and recount text. The text levels are standard or average, difficult to read, fairly difficult to read and very difficult to read. Then the table of result about readability test for reading comprehension test is figured out in appendix 8.

#### 3.7 Data Analysis

In data analysis, considering to analyze the data which purpose is to answer the problems, there will be three procedures. The first procedure, the researcher did the pre-requisite test. Then, the collocational test and reading comprehension test were observed and analyzed. The next procedure is, after the data from collocation test and reading comprehension test input to SPSS, answering the first problem by doing the correlation test. The third step, if there is a correlation between the variables, collocational knowledge and reading comprehension achievement, the analysis was continued to establish the influence of the collocational knowledge to reading comprehension achievement.

#### 3.7.1 Pre-requisite Analysis

In pre-requisite analysis, the researcher will find out whether the data distribution between the variables is normal and linear or not. It is important to do pre-requisite test since the study is in the notion of parametric statistics, correlation and regression.

#### 3.7.1.1 Normality Test

The researcher determined whether the sample data has been drawn from a normality distributed population or not. It is conducted due to many parametric statistical method, including Pearson correlation test and linear regression test, require that dependent variable is approximately normally distributed. Therefore, the researcher applied Shapiro Wilk test by using SPSS 22. The data is distributed normally if the p-value is greater than 0.05 (p > 0.05)

## 3.7.1.2 Linearity Test

The researcher will conduct linearity test in order to recognize whether the correlation between the variables is linear or not. The type of relationship that is present in a set of data is the overall direction in which reading

comprehension achievement scores change as the collocational knowledge score change. There are two general types of relationships namely, linear and no linear relationship.

In a linear relationship, as the scores increase, the scores tend to change in only one direction. In contrast, in a no linear, the other name is curvilinear, as the collocational knowledge score changes, the reading comprehension achievement score does not tend to only increase or only decrease; at the same point, the reading comprehension achievement score changes the directions of change.

In addition, the test is established as the prerequisite test of linear regression test. Hence, test for normality by using SPSS will be conducted in order to recognize whether the correlation of the variables is linear or not. Therefore, if the p- value (linearity) is more than 0.05 (p- value > 0.05), the data correlation is linearly. Then, after the researcher conduct normality test and linearity test together with the data is normal and linear, the further analysis will be able to be conducted.

## 3.7.2 Hypothesis Testing

In this research, there are two kinds of hypotheses testing that will be conducted. They are correlation analysis and regression analysis.

## 3.7.2.1. Correlation Analysis

To identify whether collocation knowledge of student's has any correlation with students' reading comprehension achievement or not, the researcher will apply Pearson-Product Moment Correlation Coefficient. By using the same

statistical method, Pearson-Product Moment, the correlation between students' collocational knowledge and reading comprehension achievement will be established. Additionally, if there is found collocation between collocational knowledge and reading comprehension achievement, it means that scores within a certain range on collocational knowledge is associated with scores within a certain range on reading comprehension achievement. To interpret the correlation coefficient, the following criterion from Cohen, Manion and Morrison (2007, p. 536) used.

**TABLE 12 The Interpretation of Correlation Coefficient** 

Interval Coefficient	Level of Correlation
0.20 - 0.35	Weak
0.35 - 0.65	Fair
0.65 - 0.85	Strong
Over 0.85	Very strong

(Source: Cohen, Manion and Morrison (2007, p. 536)

## 3.7.2.2 Regression Analysis

If there will be a probability of correlation, thus, in this research will be conducted Regression test in relation to see the influence of students' collocational knowledge to their reading comprehension achievement. The influence of the independent variable, collocational knowledge, will be gained by looking at the coefficient determination (*R Square*).

#### **CHAPTER IV**

#### FINDINGS AND INTERPRETATIONS

This chapter presents (4.1) research findings, (4.2) statistical analyses, (4.3) relationship between collocational knowledge and reading comprehension achievement and (4.4) interpretations

#### 4.1 Research Findings

This section describes and analyzes the result of the test done by undergraduate EFL students of English education study program of UIN Raden Fatah Palembang. There were two kinds of research findings in this study: (1) the result of students' collocational knowledge and (2) the result of students' reading comprehension achievement. A collocation test and reading comprehension test was administered to the students then the collocation test scores were analyzed with the reading test scores to examine their relationship.

#### **4.1.1** The Result of Collocation Knowledge

The total active students of undergraduate EFL students of English education study program of UIN Raden Fatah Palembang were 455 students. The fifth semester students participated in this study which the total number were 102 students. The collocation test that called collmatch (collocate matching) version 3 were used to investigate the participants' collocation knowledge.

In answering each item in the test, the students are subjected to two different kinds of stimuli: collocations and pseudo-collocations. For each these types, either a "yes" or "no" answer can be given. Thus, students were rewarded for 2.5 points not only for their ability to recognize collocations but also rejecting pseudo-collocations. After the students chose, the result would be analyzed by adding up the answer and wrote the total.

The descriptive statistical analysis of collocation test for the participants is shown below. The maximum score is 75, and the minimum score is 33. The mean of the collocation test score for the participants is 55.05 and the standard deviation is 8.443. It was revealed that from the test, classification of the range of score were all perceived by the students with different numbers. The details are as follow:

TABLE 13
Distribution of Collocational Knowledge Score

N	Score Interval	Frequency	Percentage	Min	Max	Mean	Std. Deviation
	80-100 Excellent	0	0 %	33	75	55.05	8.443
102	60-79 Good	35	34,31 %				
102	50-59 Average	42	41,18 %				
	0-49 Poor	25	24,51 %				

## 4.1.2 The Result of Reading Comprehension Achievement

The descriptive statistics analysis of reading comprehension achievement for the participants is shown below. The maximum score is 58, and the minimum score is 12. The mean of the reading comprehension scores for the participants is 37.33 and the standard deviation is 9.297. This mean score indicates that the level of reading comprehension achievement of participants

is relative low. The distribution of reading comprehension is presented in the following table:

TABLE 14
Distribution of Reading Comprehension Achievement Score

N	Score Interval	Frequency	Percentage	Min	Max	Mean	Std. Deviation
	80 – 100 Very Good	0	0 %				
102	70 - 79 Good	0	0 %	12	58	37.33	9.297
	60 – 69 Average	0	0 %				
	56 – 59 Poor	12	11,76 %				
	≤ 55 Very Poor	90	88,24 %				

## 4.2 Statistical Analysis

There were three statistical analyses that the researcher applied in this study:

- 1. The statistical analysis of normality and linearity.
- 2. The statistical analysis of correlation analysis between students' collocational knowledge and their reading comprehension achievement.
- 3. The statistical analysis of regression analysis between students' collocational knowledge and their reading comprehension achievement.

## 4.2.1 Normality Test and Linearity Test

Normality test and linearity test were conducted prior to data analysis through SPSS 22<sup>nd</sup> version for windows. As parametric statistics, in term of correlation and regression were used in this research, it was fundamental to

see if the distribution of data were normal for each variable and linear between variables.

## 4.2.1.1 The Result of Normality Test

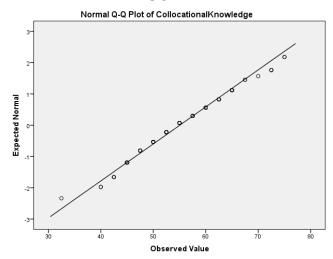
The data are interpreted normal if p > 0.05. Shapiro-Wilk was used to see the normality. The results of normality test is shown in table below indicated that the data from each variable were all normal and appropriate for data analysis with coefficients .135 for collocational knowledge and .117 for reading comprehension achievement.

**TABLE 15 Normality Test** 

	Shapiro-Wilk			
	Statistic	df	Sig.	
Collocational Knowledge	.980	102	.135	
Reading Comprehension Achievement	.980	102	.117	

The normal Q-Q plot of each variable is illustrated in the following figures:

FIGURE 1



**Distribution of Collocational Knowledge Data** 

Normal Q-Q Plot of ReadingComprehensionAchievement

Distribution of Reading Comprehension Achievement Data

## 4.2.1.2 The Result of Linearity Test

For linearity test, deviation of linearity was obtained. If probability is more than .05, the two variables are linear. The results showed that, the probability (Sig.) on linearity between collocational knowledge and reading comprehension was .626. To sum up all the data were linear for each correlation and regression.

TABLE 16 Linearity Test ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Collocational Knowledge* Reading Comprehension Achievement	Between Groups	(Combined)	1552.176	20	77.609	1.113	.353
		Linearity	16.685	1	16.685	.239	.626
		Deviation from Linearity	1535.491	19	80.815	1.159	.313
	Within Groups		5647.579	81	69.723		
	Total		7199.755	101			

# 4.3 Relationship between Collocational Knowledge and Reading Comprehension Achievement

This section answered the first research problem. By analyzing the result of descriptive statistics for the collocation test and reading comprehension test. Based on Pearson Product Moment Correlation Coefficient, the result indicated that there was no significant relationship between collocational knowledge and reading comprehension achievement. Then the level of probability (*p*) significance (sig.2-tailed) was .631. It means that p (.631) was higher than .05. Thus, there was no significant relationship between the students' collocational knowledge and their reading comprehension achievement.

TABLE 17
Correlations between Collocational Knowledge and
Reading Comprehension Achievement

		Collocational Knowledge	Reading Comprehension Achievement
Collocational Knowledge	Pearson Correlation	1	048
	Sig. (2-tailed)		.631
	N	102	102
Reading	Pearson Correlation	048	1
Comprehension	Sig. (2-tailed)	.631	
Achievement	N	102	102

## 4.4 Interpretation

The purpose of this study was to investigate which collocational knowledge of EFL learners has an influence on reading comprehension achievement. Two kinds of scores; collocation scores and reading

comprehension scores were based on the test series for which a thematic unity was maintained. They were used by 102 EFL learners of English Education Study Program of UIN Raden Fatah Palembang.

The first research question asked whether there is a significant relationship between collocation knowledge and reading ability. The results show that there was no significant correlation between the two. This finding could mean that other factors may influence reading comprehension more than collocation knowledge. In detail, the mean score for the collocation test is higher than reading comprehension test. The high mean score for collocation might be related to the point that probably the vocabulary as the area in which the participants have high talent and much practice. Another possibility might be that vocabulary acquisition is a vast area for the foreign language learners to master.

Nation (2004) states that words which are naturally associated in context are learnt more easily than those not so associated; vocabulary is best learned in context; context alone is insufficient without deliberate association. The context and the deliberate association including collocations provide connections that help learners to deeply understand a word's meaning and furthermore to add it to his or her current vocabulary.

Based on the data description, it is found that only few of sixth semester students of English education study program in academic year 2016/2017 has good score of collocation knowledge test. Owing to this fact, as Bahns (1993) and Bonk (2000) state, it can be concluded that a good level of collocational

knowledge may be regarded as one of the last stages of second language acquisition.

On the other side, the result of the total number of students that a lot of students on the mean score indicated that they did not have very good concept of collocation. As well, Liu (1999) found that the EFL students had difficulties in producing acceptable collocation. He further concluded that the causes of producing unacceptable English collocations were mostly attribute to the lack of the concept of collocation and inter-lingual transfer. For this reason, some students only understood the basic meaning of the word but did not know which word it would go with.

On the other hand, although the students are considered to have adequate knowledge of collocation, there are still many students who have limited knowledge of knowledge of collocation. It is shown that the students who got score of collocation knowledge under the mean score are lower than the students who got score upper the mean score. These students are included in poor category. Therefore, it can be concluded that while learning a new vocabulary item, the learners especially at lower levels do not learn which words collocate with that item.

This point can be explained by the argument that Foster (2001) proposed. Foster (2001) argues that as opposed to native speakers, non-native speakers develop most of their language not with lexicalized routines, but by rules. Therefore, because they learn words without paying attention to the words

that can be used with them, when they try to produce a collocation, they might come up with wrong collocations.

It means that the sixth semester students of Department of English Education should learn more about collocation in order to have very good knowledge of collocation since raising awareness of collocation is one of the important factor in English language learning. The writer discovered that the collocational errors resulted from analogy, overgeneralization, paraphrase, inter-lingual transfer, intra-lingual transfer, and shortage of collocational knowledge. In other words, the abundant vocabulary competence of EFL learners, which has greater variety than collocation, may supplement their insufficient collocation competence.

Then, based on researcher's short informal interview with English students of UIN Raden Fatah Palembang, the student taught with few materials about how to combine the words that related to each pattern of collocation and what the characteristic collocation is. For this reason, some students only understood the basic meaning of the word but did not know which word it would go with. Thus, they were not competent to produce any collocation well.

Furthermore, the students were only asked to give tick on the proper collocation and thought that the tick in "yes" column is correct and "no" column is incorrect so that only the "yes" column will be calculated. It might be the reason why the student still found difficulties during the test. Similarly,

it explains the fact that learners should spend more time and exert more effort to improve their knowledge of collocations.

Meanwhile, from the data description of reading comprehension, the score is relative very poor. It is shown by the average score of the reading comprehension of the sixth semester students of English education study program is lower than the average score of collocation knowledge. In addition, no one of the students got in average, good, and very good category. Therefore, most of the students have bad reading comprehension.

This finding could mean that other factors may influence reading ability more than collocation competence. Studies have shown that reading is not a simple ability but an active and complex psychological process associated with a variety of factors (Kwon, 2005). Another factors that learners were not in good condition during the test because the reading test was conducted after collocation test so that student were tired to be focus in answering the test.

Furthermore, the researcher took two tests on inappropriate time for students because it was very short period and all of students just had done their examination test on numerous courses. For this reason, the researcher assumed that the student felt unenthusiastic so that they were not focused on answering questions. In effect, the students score was irrelevant result.

In fact, reading comprehension tests are always basic components of all of the standardized exams, such as IELTS or TOEFL. Nevertheless, mastering reading skill has always been a challenge for EFL learners; and Indonesian university students are not exceptions to this rule. The reading is a very complex process which is influenced by many different factors. It is an active and interactive process and naturally presumes that participant have or should have some background knowledge about the topic of the text.

On the TOEFL reading test, understanding the local message (clausal and sentential level parsing) and using vocabulary and syntactic linguistic decoding were as important as understanding the global message (within-paragraph, across paragraph processing) and applying content background knowledge to making a meaningful interpretation of the textual information, if not more so.

In short, the finding reveals that there is no significant relationship between collocation knowledge and reading comprehension. It is indicated that the null hypothesis ( $H_0$ ) is accepted and alternative hypotheses ( $H_0$ ) is rejected. In other words, the total contribution of collocational knowledge and reading comprehension achievement of the sixth semester students of English education study program of Islamic State University Raden Fatah Palembang in academic year 2016/2017 showed no influenced.

These results indicate that collocations are not the influential element in reading skills regardless of the reader's level for reading ability. The researcher assumed students' weaknesses in reading abilities, especially in reading comprehension caused by several aspects such as the lack of awareness in learning to read lessons and lack of motivation to improve reading comprehension. For this reason, the students will need some repairs to be better at reading comprehension.

This finding is corroborated by a study conducted by Oh (2004) investigated the relationship between vocabulary teaching that focused on collocations and reading ability. No significant correlation was found between collocation knowledge and reading ability. As Alderson (2000) pointed out that there are several factors such as readers' background and subject/topic knowledge, their cultural knowledge, their target language knowledge, and linguistic knowledge which influence the process and product of reading. It means that the better students have knowledge of collocation does not guarantee the better student's achievement on reading comprehension.

#### **CHAPTER V**

#### **CONCLUSIONS AND SUGGESTIONS**

This chapter presents, (5.1) conclusions, and (5.2) suggestions based on the findings of the research.

#### 5.1. Conclusions

Based on the previous research, collocation and reading comprehension have not any correlation. Motivated by this, the present study sought to investigate the correlation between students' collocational knowledge and their reading comprehension achievement. The results of the data supported all the hypotheses of the study. The finding showed that the null hypothesis (Ho) was accepted and the alternative hypothesis (Ha) was rejected. There was no relationship between collocational knowledge and reading comprehension achievement.

Based on the finding, it can be concluded that the students' collocational knowledge does not give dominant effect through reading comprehension achievement of undergraduate EFL students of English Education Study Program of UIN Raden Fatah Palembang. In this case, the other factors may give more dominant effect through it. It also means that the students with good understanding and using their collocational knowledge effectively not certify will have good achievement in reading comprehension and the students with bad understanding and using their collocational knowledge ineffectively not certify will have bad achievement in reading comprehension.

#### 5.2. Suggestions

Based on the conclusion addressed above, the researcher proposes some suggestions as follows:

The findings can be useful for EFL learners who have difficulty with reading sections of TOEFL or IELTS, and also for English teachers to decide whether teaching the similar topics or the essential vocabulary or collocations of the texts can help students more. It can also guide material designers to consider collocations while preparing EFL/ESL books. Moreover, since the students' ability in reading moderate, it suggested to be an additional intellectual source, especially, in reading comprehension class. Therefore it can enrich teachers to comprehend lexical knowledge of collocations so that it can be applied in reading class.

Moreover, for other researchers, according to the research, based on student' answer sheet, some of the students are still confused to recognize collocations and rejecting pseudo-collocations. In addition, the other researchers can try to make a good test of students' mastery of collocation with the same proportion of grammatical and lexical collocation to correlate with the reading comprehension. Then, the other researcher also should make the same proportion of each reading aspects, they are main idea, specific information, reference, inference and vocabulary. So that it makes the other researchers knowing that which one can be good comprehend the reading test, grammatical collocation or lexical collocation. Moreover, the other

researchers have to count the appropriate time, lecture's schedule, and available class during the research.

Additionally, for the further research that caution should be taken when generalizing the findings of this study because the subjects in this study were limited to Indonesian university students and the number of participants was not large. To compensate for the small range of data, more participants whose majors and ages are different would be useful. For this reason, various participants will help researchers detect differences in collocation competence, and a stronger result on the relationship between collocation competence and language skills might be seen. In other words, other researchers can try to investigate the correlation or the improvement that focus on students' mastery of collocation in the other skills of learning language such as listening, speaking and writing.

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# **APPENDICES**

### **APPENDIX 1**



# UNIVERSITAS ISLAM NEGERI (UIN) RADEN FATAH PALEMBANG

### FAKULTAS TARBIYAH DAN KEGURUAN

ALAMAT: JL.PROF.K.H.ZAINAL ABIDIN FIKRI KODE POS: 30126 KOTA POS: 54 TELP: (0711) 353276
PALEMBANG

### **VALIDITY FORM**

This validation is used to validate a study that is conducted by:

Name : Dian Fitriani

Thesis Title : The Relationship between Collocational Knowledge and

Reading Comprehension Achievement of Undergraduate

EFLStudents of English Education Study Program of UIN

Raden Fatah Palembang

Students' Number : 13250018

Faculty : Tarbiyah

Department : English Education Study Program

University : Islamic State University Raden Fatah Palembang

Advisor I : Hj. Renny Kurnia Sari, M.Pd

Advisor II : Eka Sartika, M.Pd

The data analyzed is validated by:

Name : Aisyah Syahab, M. Pd

Occupation : A lecturer of Islamic State University Raden Fatah Palembang

Palembang, November 2016

# **VALIDITY FORM**

The data analyzed is validated by:

Name : Aisyah Syahab, M. Pd

Occupation : A lecturer of Islamic State University Raden Fatah Palembang

# **Validation Checklist**

		Agreeement				
No	Aspect of Validation	Strongly Agree	Agree	Disagree	Strongly Disagree	
1	The test is relevant to a given area of language content or language ability					
2	The test is appropriate of the instrument format					
3	The total number of test items is an adequate representation of the total domain of content covered by the variable being measured					
4	The test performance applicable to university students					
5	Items quality on the level of difficulty of each item are convenient					



## UNIVERSITAS ISLAM NEGERI (UIN) RADEN FATAH PALEMBANG FAKULTAS TARBIYAH DAN KEGURUAN

ALAMAT: JL.PROF.K.H.ZAINAL ABIDIN FIKRI KODE POS: 30126 KOTA POS: 54 TELP: (0711) 353276
PALEMBANG

### VALIDITY FORM

This validation is used to validate a study that is conducted by:

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Faculty : Tarbiyah

Department : English Education Study Program

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Palembang, November 2016

# **VALIDITY FORM**

The data analyzed is validated by:

Name : Beni Wijaya, M. Pd

Occupation : A lecturer of Islamic State University Raden Fatah Palembang

# **Validation Checklist**

			Agr	eeement	
No	Aspect of Validation	Strongly Agree	Agree	Disagree	Strongly Disagree
1	The test is relevant to a given area of language content or language ability				
2	The test is appropriate of the instrument format				
3	The total number of test items is an adequate representation of the total domain of content covered by the variable being measured				
4	The test performance applicable to university students				
5	Items quality on the level of difficulty of each items are convenient				



## UNIVERSITAS ISLAM NEGERI (UIN) RADEN FATAH PALEMBANG FAKULTAS TARBIYAH DAN KEGURUAN

ALAMAT: JL.PROF.K.H.ZAINAL ABIDIN FIKRI KODE POS: 30126 KOTA POS: 54 TELP: (0711) 353276
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Raden Fatah Palembang

Students' Number : 13250018

Faculty : Tarbiyah

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Palembang, November 2016

# **VALIDITY FORM**

The data analyzed is validated by:

Name : Deta Desvitasari, M. Pd

Occupation : A lecturer of Islamic State University Raden Fatah Palembang

# **Validation Checklist**

			Agr	eeement	
No	Aspect of Validation	Strongly Agree	Agree	Disagree	Strongly Disagree
1	The test is relevant to a given area of language content or language ability				
2	The test is appropriate of the instrument format				
3	The total number of test items is an adequate representation of the total domain of content covered by the variable being measured				
4	The test performance applicable to university students				
5	Items quality on the level of difficulty of each items are convenient				

APPENDIX 2

	COLL	OCATION TEST	
	6	*	
Name	:		

Student's No.: .....

University : .....

### **Directions**

This test consists of 100 word combinations (1-100). Your task is to decide whether the word combinations are used in English or not. If you think a word combination is used in English, you tick the 'yes' box. If you do not think a word combination is used in English, tick the 'no' box.

Number 1 - 3 is an example:

No.	Question	Yes	No
1	catch		~
2	take precautions	7	
3	shed attention		1

In the example above, word combination number 2, take precautions has been chosen as an existing word combination in English, whereas word combinations number 1 and 3 have been chosen as not existing.

No.	Question	Yes	Ne
1	Have a say		
2	Lose sleep		
3	Do justice		
4	Draw a breath		
5	Turn a reason		
6	Say grace		
7	Pick a glance		
8	Break news		
9	Make a move		
10	Claim trade		
11	Raise objections		
12	Bear wetness		
13	Supply one's assistance		
14	Give a speech		
15	Serve a sentence		×
16	Stretch a regard		
17	Restore a favor		
18	Keep pets		
19	Catch fire		
20	Hold meeting		

No.	Question	Yes	No
21	Pull a face		
22	Run a bath		
23	Throw a party		
24	Shake a smile		
25	Set an example		
26	Fetch an illness		
27	Drop hints		
28	Play a trick		
29	Pay attention		
30	Meet a need		
31	Reach a conclusion		
32	Drag a limit		
33	Gather a matter		
34	Assume responsibility		
35	Suffer damage		
36	Cut a corner		
37	Fly a flag		
38	Realize a potential		
39	Sink speed		
40	Fit the bill		

No.	Question Yes		No
41	Push one's luck		
42	Gain ground		
43	Perform a miracle	+	
44	Win one's memory	+-	
45	Impose success		
46	Adopt an approach		
47	Clear one's throat		
48	Strike a blow		
49	Beat eggs		
50	Employ a technique		
51	Press charges		
52	Settle a dispute		
53	Swig a secret		
54	Grant permission		
55	Express a worry		
56	Rule an award		
57	Commit a sin		
58	Launch a campaign		
59	Stick one's mood		
60	Acquire a skill		

No.	Question	Yes	No
61	Deliver a speech		
62	Spread one's wings		
63	Assess damage		
64	Afford an opportunity		
65	Ride a storm		
66	Jump a queue		
67	Score problems		
68	Roll a look		
69	Exercise Discretion		
70	Blow one's nose		
71	Rush rank		
72	Steal someone's thunder		
73	Dress a wound		
74	Pursue a career		
75	Challenge a view		
76	Knock a concern		
77	Lay pressure		
78	Pack an affair	<del>                                     </del>	
79	Abandon ship		
80	Clean windows		

No.	Question	Yes	No	
81	Dismiss an idea			
82	Shift gear			
83	Justify one's existence			
84	Bind blood			
85	Charge respect			
86	Cast a vote			
87	Kick one's heels			
88	Bend a rule			
89	Fill an aim			
90	Lend support			
91	Sustain an injury			
92	Hit approval			
93	Cease fire			
94	Snap one's fingers			
95	Shrug one's shoulders			
96	Stand an occasion			
97	Grab a hold			
98	Sit seed			
99	Fall a failure	1		
100	File a report			

APPENDIX 3
The Validity of Students' Collocation Tryout Test

No	Question Items	Corrected Item-Total Correlation	Result
1.	Item1	.450	Valid
2.	Item2	.556	Valid
3.	Item3	.026	Invalid
4.	Item4	240	Invalid
5.	Item5	.204	Valid
6.	Item6	087	Invalid
7.	Item7	.375	Valid
8.	Item8	068	Invalid
9.	Item9	.083	Invalid
10.	Item10	.353	Valid
11.	Item11	.013	Invalid
12.	Item12	005	Invalid
13.	Item13	.068	Invalid
14.	Item14	.150	Invalid
15.	Item15	.011	Invalid
16.	Item16	.408	Valid
17.	Item17	.144	Invalid
18.	Item18	014	Invalid
19.	Item19	.004	Invalid
20.	Item20	.059	Invalid
21.	Item21	.207	Valid
22.	Item22	.031	Invalid
23.	Item23	.158	Invalid
24.	Item24	.132	Invalid
25.	Item25	.256	Valid
26.	Item26	.207	Valid
27.	Item27	.380	Valid
28.	Item28	.489	Valid
29.	Item29	.000	Invalid
30.	Item30	.425	Valid
31.	Item31	.328	Valid
32.	Item32	.280	Valid
33.	Item33	.222	Valid
34.	Item34	.014	Invalid
35.	Item35	.319	Valid
36.	Item36	.430	Valid
37.	Item37	.266	Valid
38.	Item38	.405	Valid
39.	Item39	.046	Invalid
40.	Item40	151	Invalid

41.	Item41	.482	Valid
42.	Item42	.154	Invalid
43.	Item43	.303	Valid
44.	Item44	.164	Invalid
45.	Item45	.086	Invalid
46.	Item46	.374	Valid
47.	Item47	.184	Invalid
48.	Item48	.275	Valid
49.	Item49	.330	Valid
50.	Item50	.397	Valid
50. 51.	Item51	.277	Valid
52.	Item52	.333	Valid
53.	Item53	.219	Valid
54.	Item54	.219	Valid
55.	Item55	141	Invalid
56.	Item56	.228	Valid
50. 57.	Item57	.313	Valid
57. 58.	Item58	.168	Invalid
58. 59.	Item59	.266	Valid
60.	Item60	.122	Invalid
60. 61.	Item61	.122	Valid
62.		.208	
	Item62		Valid Invalid
63.	Item63	145 052	
64.	Item64	.052	Invalid
65.	Item65	.086	Invalid
66.	Item66	.042	Invalid
67.	Item67	.145	Invalid
68.	Item68	011 212	Invalid
69.	Item69	.213	Valid
70.	Item70	.399	Valid
71. 72.	Item71	.510	Valid
	Item72	310 165	Invalid
73. 74.	Item73 Item74	163 031	Invalid Invalid
74. 75.	Item75		Invalid
		261 .082	Invalid
76. 77.	Item76 Item77	.154	Invalid
78.	Item78 Item79	.433	Valid
79. 80.	Item/9	087 .470	Invalid Valid
80. 81.	Item81	.078	Invalid
81. 82.	Item82		
		.263	Valid
83.	Item83	.035	Invalid
84. 85	Item84	.209	Valid
85. 86	Item85	.398	Valid
86.	Item86	.496	Valid

87.	Item87	.093	Invalid
88.	Item88	.237	Valid
89.	Item89	.357	Valid
90.	Item90	.200	Valid
91.	Item91	.086	Invalid
92.	Item92	.111	Invalid
93.	Item93	.369	Valid
94.	Item94	018	Invalid
95.	Item95	.402	Valid
96.	Item96	.110	Invalid
97.	Item97	213	Invalid
98.	Item98	.275	Valid
99.	Item99	.115	Invalid
100.	Item100	198	Invalid

APPENDIX 4

#### READING COMPREHENSION TEST

# Time: 75 Minutes 70 Questions

### Directions

In this section, you will read a number of passage. Each one is followed by approximately ten questions about it. For questions 1-50, choose the *one* best answer, (A), (B), (C), or (D), to each question. Then, find the number of the question on your answer sheet, and fill in the space that corresponds to the letter of the answer you have chosen. Answer all questions following a passage on the basis of what is *stated* or *implied* in that passage.

### Questions 1 through 11 are based on the following passage.

The food we eat seems to have profound effects on our health. Although science has made enormous steps in making food more fit to eat, it has, at the same time, made many food unfit to eat. Some research has shown that perhaps eighty percent of all human illnesses are related to diet and forty percent of cancer is related to the diet as well, especially cancer of the colon. People of different cultures are more prone to contract certain illnesses because of the characteristic foods they consume.

That food is related to illness is not a new discovery. In 1945, government researchers realized that nitrates and nitrites (commonly used to preserve color in means) as well as other food additives caused cancer. Yet, these carcinogenic additives remain in our food, and it (10) becomes more difficult all the time to know which ingredients on the packaging labels of processed food are helpful or harmful.

The additives that we eat are not all so direct. Farmers often give penicillin to cattle and poultry, and because of this, penicillin has been found in the milk of treated cows. Sometimes similar drugs are administered to animals not for medicinal purposes, but for (15) financial reasons. The farmers are simply trying to fatten the animals in order to obtain a higher price on the market. Although the Food and Drug Administration (FDA) has tried repeatedly to control these procedures, the practices continue.

A healthy diet is directly related to good health. Often we are unaware of detrimental substance we ingest. Sometimes well-meaning farmers or others who do not realize the (20) consequences add these substances to food without our knowledge.

1. How has science done a disservice to people? (A) Because of science, disease caused by contaminated food has been virtually eradicated. (B) It has caused a lack of information concerning the value of food. (C) As a result of scientific intervention, some potential harmful substances have been added to our food. (D) The scientist have preserved the color of meats, but not of vegetables. The word "prone" in line 5 is nearest in meaning to (C) Healthy (A) Supine (D) Predisposed (B) Unlikely What are nitrates used for? (A) They preserve flavor in packaged foods. (B) They preserve the color of meats. (C) They are the objects of research. (D) They cause the animals to become fatter. 4. FDA means (A) Food Direct Additives (B) Final Difficult Analysis (C) Food and Drug Administration (D) Federal Dairy Additives The word "these" in line 9 refers to (A) Meats (C) researchers (B) Colors (D) nitrates and nitrites In line 9, the word "carcinogenic" is closest in meaning to (C) Money- making (A) Trouble-making (D) Benign substances (B) Color-retaining 7. All of the following statements are true EXPECT (A) Drugs are always given to animals for medical reasons (B) Some of the additives in our food are added to the food itself and some are given to the living animals (C) Researchers have known about the potential hazards of food additives for more than

forty-five years

(D) Food may cause forty percent of the cancer in the world

- 8. The word "additives" in line 9 is closest in meaning to
- (A) Added substances

(C) Natural substances

(B) Dangerous substances

- (D) Benign substances
- 9. What is the best title for this passage?
- (A) Harmful and harmless substances in food
- (B) Improving health through a natural diet
- (C) The food you eat can affect your health
- (D) Avoiding injurious substances in food
- 10. In line 2, the word "fit" is closest in meaning to
- (A) Athletic
- (B) Suitable
- (C) Tasty
- (D) Adaptable
- 11. The fact that the topic has been known for some time is discussed in lines
- (A)2-4
- (B) 10-11
- (C) 17-19
- (D) 26-27

### Questions 12 through 21 are based on the following passage.

The ancient Egyptians firmly believed in the afterlife and spent their time on earth preparing for it. Elaborate burial ritual included preparing the burial site, providing for all of the deceased's material needs (food, clothing, jewels, and tools of their trade), and preserving the corpse so that it would not decay. This preservation was accomplished through a process of mummification. The ancients left no written accounts as to the execution of this process, so scientists have had to examine mummies and establish their own theories. The embalming process might have taken up to seventy days for the pharaohs and nobility and only a few days for the poor.

The embalmers spread a variety of compounds of salt, spices, and resins in and over the corpse to preserve it. They followed this with a prescribed wrapping, a procedure in which they wound strips of fine linen around, over, and under the body while placing various amulets within the wrapping to protect the deceased from harm on the long journey to afterlife. They also painted resins over the wrapped linen. Finally, a pharaoh or noble would have been encased in a wooden box before being placed in a sarcophagus.

- 12. How have we been able to learn about the mummification process?
- (A) Accurate records have been handed down to us.
- (B) Interviews with embalmers who still use the process have revealed the secret.
- (C) After studying mummies, scientist have developed their own theories.
- (D) Chemical analysis of the compounds has led us to an explanation of the method used.

13. The word "they" in line 10 refers to		
(A) Embalmers	(C) Pharaohs	
(B) Spices	(D) The poor	
<ul> <li>14. The embalming process can best be of</li> <li>(A) Lengthy and complicated</li> <li>(B) Short and simple</li> <li>(C) Strict and unfaltering</li> <li>(D) Wild and terrifying</li> </ul>	lescribed as	
15. The word "decay" in line 4 is closest	in meaning to	
(A) Die	(C) Embalm	
(B) Deteriorate	(D) Rejuvena	te
(b) betteriorate	(-/3	
16. All of the following statements are tr	rue EXCEPT	
(A) Bodies were preserved as a matter of		
(B) All mummification took seventy days		
(C) Special compound were used to emba		
(D) It has been difficult to determine the		
<ul><li>17. Why did the ancient Egyptians mum</li><li>(A) To preserve the body from destructio</li><li>(B) To scare tomb robbers</li><li>(C) To encase the body in a sarcophagus</li><li>(D) To protect the body from harm on the</li></ul>	n	
<ol> <li>It can be inferred that the Egyptians deceased because</li> </ol>	buried food, clothing, je	ewels, and tools with the
(A) The family did not want anyone else	to share them	
(B) That was the wish of the deceased		
(C) They were afraid		
(D) The deceased would need them while	e enroute to the afterlife	
19. The word "amulets" in line 12 is clo		(D) Curses
(A) Weapons (B) Coins	(C) Charms	(D) Curses
20 In the 4 "assemptished" is also art	in meaning to	
20. In line 4, "accomplished" is closest	(C) Reproduced	(D) Dwindled
(A) Performed (B) Forsaken	(C) Reproduced	(D) Dimerca

(C) 9-10(D) 10-13 (B) 6-8(A)2-4Questions 22 through 30 are based on the following passage. A tapeworm is a parasite that lives in the intestines of humans and animals. Some tapeworms attach themselves to the intestinal wall by means of suckers in their heads. Others float freely in the intestines and absorb food through the walls of their bodies. A tapeworm consists of numerous segments. When a new segment forms, the older (5) ones move to the back of the animal. Each segment contains hermaphroditic sexual organs (that is, male and female organs). The uterus of each segment fills with eggs, which develop into embryos. Generally, when the eggs are ready to hatch, the segment breaks off and is eliminated through the host's excretory system. These embryos hatch, develop into larvae, and grow to adults only if ingested by an intermediate host. One may be infected by tapeworms by eating undercooked beef, pork, or fish. (10)Symptoms include irregular appetite, abdominal discomfort, anemia, weakness, and nervousness. 22. The passage implies that all of the following are true EXPECT (A) An embryo will cease to develop if not ingested by a host (B) A tapeworm will continue to live even when segments break off (C) The segment farthest back on the tail is the oldest (D) Tapeworms always float freely in the digestive system 23. The word "eliminated" in line 8 is closest in meaning to (C) Eaten (D) Grown (B) Expelled (A) Ingested 24. A hermaphrodite is (A) A tapeworm (B) A segment containing an embryo (C) A being that contains male and female sexual organs (D) An animal made of segments 25. The word "others" in line 2 refers to

(C) Eggs

(B) Embryos

(A) Segments

(D) Tapeworms

21. The distinction between mummification of bodies from different classes is explained

in lines

- 26. Which of the following is probably NOT a symptom of tapeworm infestation?
- (A) Unusual eating habits
- (B) Excitability
- (C) Deficiency of red blood cells
- (D) Euphoria
- 27. Which of the following statements is true?
- (A) A tapeworm uterus contains one egg
- (B) Overcooked beef is a cause of tapeworms
- (C) A male tapeworm must always be ingested before reproduction will occur
- (D) Tapeworms vary in their methods of ingesting food
- 28. What would be the best title for this reading passage?
- (A) Parasites
- (B) Reproduction of the Tapeworm
- (C) The Tapeworm, a Harmful Parasite
- (D) Segmented Parasites
- 29. A tapeworm attaches itself to the intestinal wall by
- (A) Suction
- (B) Liquid
- (C) Food
- (D) Teeth
- 30. In line 4, the word "segments" is closest in meaning to
- (A) Types
- (B) Sections
- (C) Organs
- (D) Worms

### Questions 31 through 40 are based on the following passage.

After inventing dynamite, Swedish-born Alfred Nobel became a very rich man. However, he foresaw its universally destructive powers too late. Nobel preferred not to be remembered as the invertor of dynamite, so in 1895, just two weeks before his death, he created a fund to be used for awarding prizes to people who had made worthwhile contributions to humanity. Originally there were five awards: literature, physics, chemistry, medicine, and peace. Economics was added in 1968, just sixty-seven years after the first awards ceremony.

Nobel's original legacy of nine million dollars was invested, and the interest on this sum is used for the awards which vary from \$30.000 to \$125.000.

(10) Every year on December 10, the anniversary of Nobel's death, the awards (gold medal, illuminated diploma, and money) are presented to the winners. Sometimes politics plays an important role in the judge's decisions. Americans have won numerous science awards, but relatively few literature prizes.

No awards were presented from 1940 to 1942 at the beginning of World War II. Some people have won two prizes, but this is rare; others have shared their prizes.

31.	The word "foresa	w" in line 2 is neares	t in meaning to	
(A)	Prevailed	(B) postponed	· (C) prevented	(D) predicted
(B) (C)				
33.	In which area ha	ve Americans receive	d the most awards?	ť
(A)	Literature	(B) Peace	(C) Economics	(D) Science
(B (C	) Awards vary in n ) Ceremonies are h ) Politics plays an	ing statements are true nonetary value held on December 10 t important role in select s have won two award	to commemorate Nobel	's invention
35.	In how many fie	lds are prizes bestowe	ed?	
(A		(B) 5	(C) 6	(D) 10
36.		Nobel's profession w (B) Medicine	vas in (C) Literature	(D) Science
(A	) Economics	(B) Medicine	(C) Literature	(B) Selence
37.	In line 4, "worth	while" is closest in m	eaning to	
(A	)Economic	(B) Prestigious	(C) Trivial	(D) Valuable
38.	How much mon	ey did Nobel leave for	r the prizes?	
(A	.)\$30,000	(B) \$125,000	(C) \$155,000	(D) \$9,000,000
(E	A) Alfred Nobel bed A) Alfred Nobel cre A) Alfred Nobel lef	n idea of this passages came very rich when leated awards in six cat at all of his money to sade a lasting contribut	ne invented dynamite. tegories for contribution cience.	n to humanity.

40. The word "legacy" in line 8 means most nearly the same as

(A)Legend

(B) Bequest

(C) Prize

(D) Debt

### Questions 41 through 50 are based on the following passage.

Ever since humans have inhabited the earth, they have made use of various forms of communication. Generally, this expression of thoughts and feelings has been in the form of oral speech. When there is a language barrier, communication is accomplished through sign language in which motions stand for letters, words, and ideas. Tourists, the deaf, and the mute have had to resort to this form of expression. Many of these symbols of whole words are very picturesque and exact and can be used internationally; spelling, however, cannot.

Body language transmits ideas or thoughts by certain actions, either intentionally or unintentionally. A wink can be a way of flirting or indicating that the party is only joking. A nod signifies approval, while shaking the head indicates a negative reaction.

(10) Other forms of nonlinguistic language can be found in Braille (a system of raised dots read with the fingertips), signal flags, Morse code, and smoke signals. Road maps and picture signs also guide, warn, and instruct people.

While verbalization is the most common form of language, other systems and techniques also express human thoughts and feelings.

- 41. Which of the following best summarizes this passage?
- (A) When language is a barrier, people will find other forms of communication.
- (B) Everybody uses only one form of communication.
- (C) Nonlinguistic language is invaluable to foreigners.
- (D) Although other forms of communication exist, verbalization is the fastest.
- 42. The word "these" in line 5 refers to
- (A) Tourist
- (B) The deaf and the mute
- (C) Thoughts and feelings
- (D) Sign language motions
- 43. All of the following statements are true EXCPET
- (A) There are many forms of communication in existence today
- (B) Verbalization is the most common form of communication
- (C) The deaf and mute use an oral form of communication
- (D) Ideas and thoughts can be transmitted by body language

44.	Which form oth people?	er than oral s	peech would be most	commonly used among blind
(A)	Picture signs	(B) Braille	(C) Body language	(D) Signal Flags
45.	How many diffe	rent forms of c	ommunication are men	tioned here?
(A)	posterior of the same	(B) 7	(C) 9	(D) 11
46.	The word "wink	" in line & mea	ns most nearly the sam	e as
	Close one eye br		ns most nearly the sain	V W.
	Close two eyes b			
, ,	) Bob the head up			
(D	)Shake the head fi	rom side to sid	e	
47.	Sign language is EXCEPT for	said to be very		and can be used internationally
(A	)Spelling	(B) Ideas	(C) Whole words	(D) Expressions
(B (C (D	) Create language ) Keep from readin ) Be picturesque a ) Express thoughts	barriers ng with their fi nd exact and feelings	ngers	
49.	What is the best			
,	)The Importance	10.00	177	
	) The Many Form ) Ways of Express		cauon	
	) Ways of Express ) Picturesque Sym		unication	
(D	) Ficturesque Sym	loois of Comm	umoution	
50.		1000	use Morse code?	
(A	A) A scientist	(B) A spy	(C) An airline pilot	(D) A telegrapher
Que	estions 51 through	59 are based	on the following passa	ege.

Gelatin is a protein substance that comes from the skins and bones of animals. Most people know it as the substance used to make a jellylike salad or dessert. Not only is it useful in making these foods, but it is also beneficial to the consumer because of its high protein content. Gelatin is also commonly used in the photographic industry and in making (5) medicinal capsules.

The process for producing gelatin is a long and complex one. In the processing of gelatin made from bones (which varies slightly from that of gelatin made from skin), the grease first must be eliminated. Then the boners are soaked in a solution of hydrochloric acid in order to rid them of minerals and washed several times in water. Next, the bones are placed in distilled water, heated to over 90°F for a few hours, placed in fresh distilled water, and then heated again at a little over 100°F. A fluid forms this heating, and it is concentrated, chilled, and sliced. Finally, it is dried and ground. In its final form, gelatin is white, tasteless, and odorless.

- 51. It can be inferred from this reading passage that
- (A) One could easily make gelatin at home
- (B) It is necessary to add minerals to the gelatin
- (C) Fat aids in making good gelatin
- (D) Gelatin is useful for elderly and ill people because it is easy to chew and high in protein
- 52. The word "fluid" in line 11 is closest in meaning to
- (A) Liquid
- (B) Distilled water
- (C) Hard material
- (D) Substance

- 53. Which of the following is true?
- (A) Gelatin made from skin is produced in the same way as that made from bones
- (B) Grease probably does not aid in producing gelatin
- (C) The chemical used in making gelatin comes off the surface of the bones by rinsing with water
- (D) When the gelatin is dried, it is in powder form
- 54. Which of the following would be the best title for this passage?
- (A) The process of making gelatin
- (B) Protein foods
- (C) Uses for bones
- (D) A great dessert
- 55. All of the following industries are mentioned as using gelatin EXPECT
- (A) The lawn care industry
- (B) The photographic industry
- (C) The pharmaceutical industry
- (D) The food industry

- 56. According to the passage, why is eating gelatin healthy?
- (A) It is does not damage the teeth
- (B) It is low fat
- (C) It is protein rich
- (D) It has no animal by products
- 57. The word "ground" in line 12 is closest in meaning to
- (A) Refrigerated
- (B) Pulverized
- (C) Putrified
- (D) Dirtied
- 58. Why would gelatin be useful for medicine capsules?
- (A) It tastes good
- (B) It is a natural substance that is easy to digest
- (C) It is easy to make and thus inexpensive
- (D) It won't melt at high temperatures
- 59. The word "that" in line 7 refers to
- (A) Gelatin
- (B) Processing
- (C) Skin
- (D) Bones

### Questions 60 through 70 are based on the following passage.

In recent years, scientific and technological developments have drastically changed human life on our planet, as well as our views both of ourselves as individuals in society and of the universe as a whole. Perhaps one of the most profound developments of the 1970s was the discovery of recombinant DNA technology, which allows scientist to introduce genetic (5) material (or genes) from one organism into another. In its simplest form, the technology requires the isolation of a piece of DNA, either directly from the DNA of the organism under study or artificially synthesized from an RNA template by using a viral enzyme called reverse transcriptase. This piece of DNA is then ligated to a fragment of bacterial DNA which has the capacity to replicate itself independently. The recombinant molecule thus (10) produced can be introduced into the common intestinal bacterium *Escherichia coli*, which can be grown in very large amounts in synthetic media. Under proper conditions, the foreign gene will not only replicate in the bacteria, but also express itself, through the process of transcription and translation, to give rise to large amounts of the specific protein coded by the foreign gene.

The technology has already been successfully applied to the production of several therapeutically important biomolecules, such as insulin, interferon, and growth hormones. Many other important applications are under detailed investigation in laboratories throughout the world.

100000000		A technology consists		
(A)	Producing several	therapeutically impor	tant biomolecules	
(B) Giving rise to large amounts of protein				
(C) Introducing genetic material from one organism into another				
		me called reverse tran		
( )			77	
61.	The word "profor	and" in line 3 is closes	t in meaning to	
	Significant	(B) Boring	(C) Dangerous	(D) Secret
()		( )		0.00
62.	In line 6, the wor	d "isolation" is closest	in meaning to	
	Destruction	(B) Duplication	(C) Segregation	(D) Study
(1.1)	20020000	(-)	( ) 0 0	
63.	Recombinant DN	A technology has been	used in the production	n of all of the following
	biomolecules EX		entra de la companya	
(A)	Growth hormone			
	Escherichia coli	~		
•	Artistically			
, ,	Carefully			
(D)	Carciany			
64.	In line 7 "artifici	:-11-2) := alagant in man	uima ta	
		ally as closest in inea	mng w	
		ally" is closest in mea (B) Synthetically		(D) Carefully
	Correctly	(B) Synthetically	(C) Artistically	(D) Carefully
(A)	Correctly	(B) Synthetically	(C) Artistically	(D) Carefully
(A) 65.	Correctly  The word "ligate	(B) Synthetically d" in line 8 is closest i	(C) Artistically n meaning to	
(A) 65.	Correctly	(B) Synthetically	(C) Artistically	(D) Carefully (D) Bound
(A) 65. (A)	Correctly  The word "ligate Interested	(B) Synthetically d" in line 8 is closest i (B) Cut	(C) Artistically n meaning to	
(A) 65. (A) 66.	Correctly  The word "ligate Interested  Which of the foll	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true?	(C) Artistically n meaning to (C) Elevated	(D) Bound
(A) 65. (A) 66.	Correctly  The word "ligate Interested  Which of the foll The foreign generation."	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true? e will replicate in the	(C) Artistically n meaning to (C) Elevated	
(A) 65. (A) 66. (A)	Correctly  The word "ligate Interested  Which of the foll The foreign gene transcription and	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true? e will replicate in the translation	(C) Artistically n meaning to (C) Elevated bacteria, but it will no	(D) Bound of express itself through
(A) 65. (A) 66. (A)	The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium E.	(B) Synthetically d" in line 8 is closest i (B) Cut lowing is NOT true? e will replicate in the translation scherichia coli can be	(C) Artistically n meaning to (C) Elevated bacteria, but it will no	(D) Bound of express itself through
(A) 65. (A) 66. (A) (B) (C)	The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium Ex Research continue."	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true? e will replicate in the translation scherichia coli can be ues in an effort to find	(C) Artistically n meaning to (C) Elevated bacteria, but it will not grown in large amount other uses for this tech	(D) Bound of express itself through
(A) 65. (A) 66. (A) (B) (C)	The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium Ex Research continue."	(B) Synthetically d" in line 8 is closest i (B) Cut lowing is NOT true? e will replicate in the translation scherichia coli can be	(C) Artistically n meaning to (C) Elevated bacteria, but it will not grown in large amount other uses for this tech	(D) Bound of express itself through
(A) 65. (A) 66. (A) (B) (C) (D)	Correctly  The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium E. Research continu Recombinant DN	(B) Synthetically d" in line 8 is closest i (B) Cut lowing is NOT true? e will replicate in the translation scherichia coli can be les in an effort to find l'A technology is a reco	(C) Artistically n meaning to (C) Elevated bacteria, but it will no grown in large amount other uses for this tech ent development	(D) Bound of express itself through
(A) 65. (A) 66. (A) (B) (C) (D)	The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium E. Research continu Recombinant D. In line 8, the word	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true? e will replicate in the translation scherichia coli can be les in an effort to find A technology is a record d"fragment" is neares	(C) Artistically n meaning to (C) Elevated bacteria, but it will not grown in large amount other uses for this techent development	(D) Bound of express itself through as in synthetic media nology
(A) 65. (A) 66. (A) (B) (C) (D)	Correctly  The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium E. Research continu Recombinant DN	(B) Synthetically d" in line 8 is closest i (B) Cut lowing is NOT true? e will replicate in the translation scherichia coli can be les in an effort to find l'A technology is a reco	(C) Artistically n meaning to (C) Elevated bacteria, but it will no grown in large amount other uses for this tech ent development	(D) Bound of express itself through
(A) 65. (A) 66. (A) (B) (C) (D) 67. (A)	Correctly  The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium Ex Research continu Recombinant DN  In line 8, the wor Particle	(B) Synthetically d" in line 8 is closest i (B) Cut lowing is NOT true? e will replicate in the translation scherichia coli can be les in an effort to find the technology is a record d "fragment" is neares (B) Reproduction	(C) Artistically  n meaning to (C) Elevated  bacteria, but it will not grown in large amount other uses for this techent development at in meaning to (C) Opposite	(D) Bound of express itself through as in synthetic media nology
(A) 65. (A) 66. (A) (B) (C) (D) 67. (A)	Correctly  The word "ligate Interested  Which of the foll The foreign gene transcription and The bacterium Ex Research continu Recombinant DN  In line 8, the wor Particle	(B) Synthetically d" in line 8 is closest i (B) Cut owing is NOT true? e will replicate in the translation scherichia coli can be les in an effort to find A technology is a record d"fragment" is neares	(C) Artistically  n meaning to (C) Elevated  bacteria, but it will not grown in large amount other uses for this techent development at in meaning to (C) Opposite	(D) Bound of express itself through as in synthetic media nology

- 69. Expression of a gene in Escherichia coli requires
- (A) The viral enzyme reverse transcriptase
- (B) The processes of transcription and translation
- (C) Production of insulin and other biomolecules
- (D) That the bacteria be grown in a synthetic media
- 70. The term "recombinant" is used because
- (A) By ligation, a recombinant molecule is produced, which has the capacity of replication
- (B) The technique requires the combination of several types of technology
- (C) By ligation, a recombination protein is produced; part of whole amino acids come from each different organism
- (D) Escherichia coli is a recombinant organism

C D															
<b>B</b>															
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APPENDIX 6

The Validity of Students' Reading Comprehension Tryout Test

1.	ne vandity of Stud	lents' Reading Comprehension Tryot	it Test
No	Question Items	Corrected Item-Total Correlation	Result
1.	Item1	.042	Invalid
2.	Item2	047	Invalid
3.	Item3	.398	Valid
4.	Item4	.000	Invalid
5.	Item5	.172	Invalid
6.	Item6	180	Invalid
7.	Item7	.247	Valid
8.	Item8	058	Invalid
9.	Item9	.085	Invalid
10.	Item10	.234	Valid
11.	Item11	398	Invalid
12.	Item12	.535	Valid
13.	Item13	.332	Valid
14.	Item14	.535	Valid
15.	Item15	.419	Valid
16.	Item16	.292	Valid
17.	Item17	.283	Valid
18.	Item18	.612	Valid
19.	Item19	.524	Valid
20.	Item20	.680	Valid
21.	Item21	.447	Valid
22.	Item22	.443	Valid
23.	Item23	.222	Valid
24.	Item24	.398	Valid
25.	Item25	.071	Invalid
26.	Item26	.495	Valid
27.	Item27	.238	Valid
28.	Item28	.280	Valid
29.	Item29	.422	Valid
30.	Item30	.718	Valid
31.	Item31	.300	Valid
32.	Item32	.557	Valid
33.	Item33	.348	Valid
34.	Item34	160	Invalid
35.	Item35	.346	Valid
36.	Item36	.428	Valid
37.	Item37	.266	Valid
38.	Item38	180	Invalid
39.	Item39	281	Invalid
40.	Item40	.351	Valid
41.	Item41	.410	Valid

42.	Item42	.498	Valid
43.	Item43	.682	Valid
44.	Item44	.396	Valid
45.	Item45	.597	Valid
46.	Item46	.494	Valid
47.	Item47	.561	Valid
48.	Item48	.354	Valid
49.	Item49	359	Invalid
50.	Item50	187	Invalid
51.	Item51	.613	Valid
52.	Item52	489	Invalid
53.	Item53	.183	Invalid
54.	Item54	.412	Valid
55.	Item55	.374	Valid
56.	Item56	.481	Valid
57.	Item57	.363	Valid
58.	Item58	.000	Invalid
59.	Item59	.458	Valid
60.	Item60	.490	Valid
61.	Item61	.382	Valid
62.	Item62	.613	Valid
63.	Item63	580	Invalid
64.	Item64	.152	Invalid
65.	Item65	.605	Valid
66.	Item66	.572	Valid
67.	Item67	.572	Valid
68.	Item68	055	Invalid
69.	Item69	.424	Valid
70.	Item70	.322	Valid

# The Reliability of Students' Collocation Tryout Test and Reading Comprehension Tryout Test

# **Reliability Statistics**

No	Type of Test	Cronbach's Alpha	N of Items	Result
1 2	Collocation test Reading Comprehension test	.790 .863	100 70	Reliable

APPENDIX 8

The Readability of Students' Reading Comprehension Tryout Test

No	Passage	Text St	atistics	Flesch Reading	Text Level
110	1 assage	Total of Sentence	Total of Words	Ease Score	Text Devel
1	1st passage	15	275	55.6	Fairly difficult to read
2	2 <sup>nd</sup> passage	9	197	49.3	Difficult to read
3	3 <sup>rd</sup> passage	11	149	50.6	Fairly difficult to read
4	4 <sup>th</sup> passage	13	187	52	Fairly difficult to read
5	5 <sup>th</sup> passage	11	184	55.6	Fairly difficult to read
6	6 <sup>th</sup> passage	11	183	62.4	Standard/average
7	7 <sup>th</sup> passage	8	225	20	Very difficult to read

COLLOCATION T	EST	T
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Name : ..... Student's No.: ..... University

: .....

#### **Directions**

This test consists of 50 word combinations (1-50). Your task is to decide whether the word combinations are used in English or not. If you think a word combination is used in English, you tick the 'yes' box. If you do not think a word combination is used in English, tick the 'no' box.

Number 1 - 3 is an example:

No.	Question	Yes	No
1	catch importance		1
2	take precautions	<b>√</b>	
3	shed attention		1

In the example above, word combination number 2, take precautions has been chosen as an existing word combination in English, whereas word combinations number 1 and 3 have been chosen as not existing.

No.	Question	Yes	No
1	Have a say		
2	Lose sleep		
3	Turn a reason		
4	Pick a glance		
5	Claim trade		
6	Stretch a regard		
7	Pull a face		
8	Set an example		
9	Fetch an illness		
10	Drop hints		
11	Play a trick		
12	Meet a need		
13	Reach a conclusion		
14	Drag a limit		
15	Gather a matter		
16	Suffer damage		
17	Cut a corner		
18	Fly a flag	1	
19	Realize a potential		
20	Push one's luck		

No.	Question	Yes	No
21	Perform a miracle		
22	Adopt an approach		
23	Strike a blow		
24	Beat eggs		
25	Employ a technique		
26	Press charges		
27	Settle a dispute	-	
28	Swing a secret		
29	Grant permission		
30	Rule an award		

No.	Question	Yes	No
31	Commit a sin		
32	Stick one's mood		
33	Deliver a speech		
34	Spread one's wings		
35	Exercise discretion		
36	Blow one's nose		
37	Rush rank		
38	Pack an affair		
39	Clean windows		
40	Shift gear		

# The Score of Student's Collocation Test

1 2 3 4																SKOR	HE	4														SKOR	SKOR TOTAL	Classificati
2 3 4		2 3	4	5 6	7	8	9 1	0 11	12	13	14	15 16	17	18	19	20 2	1 22	23	24 2	25 2	6 27	28	29 3	0 3	1 32	33 34	35	36	37	38 39	40	SKOK	SKOK TOTAL	Ciassilicati
3 4	1	0 0	0	0 0	1		0 1		0	1		1 0	0	0	0	1 1		1		1 (		1	1			1 1	1	0	1	1 0	1	23	57,5	Average
4	1	0 0	0	1 0	1	1	0 0	1	0	1	0	1 0	1	1	0	1 1	. 1	1	1	0 1	1 0	0	1 (	0 0	0	1 1	1	0	0	0 0	1	20	50	Average
	1	1 1	0	1 1	1	1	0 1	1	0	1	0	1 1	1	1	0	1 (	1	1	1	1 1	1 1	1	0	1 1	. 0	1 1	1	1	0	1 1	0	30	75	Good
	1	0 0	0	1 0	1	1	1 (	1	1	0	1	1 1	0	1	1	1 1	. 1	0	0	1 (	0 (	1	0 (	0 0	0	1 1	0	0	1	0 1	0	21	52,5	Average
5	1	1 1	0	1 1	1	0	1 1	1	0	1	0	1 1	1	0	0	1 (	1	1	0	1 (	0	0	0 (	0 0	1	1 1	0	1	0	0 1	0	22	55	Average
6	0	1 0	0	1 1	0	1	1 1	1	1	1	0	1 0	1	1	0	1 (	1	1	0	0 1	1 0	0	0	1 1	0	1 1	0	1	0	0 1	0	22	55	Average
7	1	1 1	0	0 0	1	1	0 1	1	1	1	0	0 1	1	1	1	1 1	1	1	1	1 1	1 1	0	1	1 1	0	1 1	1	1	0	0 1	1	30	75	Good
8	0	0 1	0	1 0	0	0	0 1	1	0	1	0	1 1	0	0	1	1 1	1	0	0	1 (	1	0	1 (	0 1	0	1 1	1	1	0	1 1	0	21	52,5	Average
9	1	0 1	0	0 1	1	1	1 1	1	0	1	0	1 1	1	1	1	0 (	1	1	0	1 1	1 0	0	0	1 1	1	1 1	1	0	0	1 1	1	27	67,5	Good
10	1	0 1	0	0 1	1	1	1 1	1	0	1	0	1 1	1	1	1	0 1	1	1	0	1 1	1 0	0	0 (	0 1	1	1 1	1	0	0	1 1	1	27	67,5	Good
11	1	1 1	0	1 0	1	0	0 1	1	0	0	0	0 1	1	1	1	0 1	0	0	1	1 1	1 0	0	1	1 1	0	1 1	0	1	0	1 0	0	22	55	Average
12	1	0 0	0	0 0	1	1	0 1	1	0	1	0	0 1	1	1	1	1 1	1	1	1	1 1	1 1	0	1	1 1	0	1 1	1	0	0	0 1	1	26	65	Good
13	0	0 0	0	1 1	1	1	1 1	1	0	1	0	0 1	1	1	1	1 1	0	1	1	1 (	0 (	0	1	1 1	1	1 1	0	1	0	1 1	0	26	65	Good
14		0 0	0	1 1	1	1	1 1	1	0	1	0	0 0	1	1	1	1 1		0	1		) 1	0	1	1 1	1	1 1	0	1	0	1 1	0	25	62,5	Good
15		1 1	0	0 1	1	0	0 1	0	1	0	0	1 1	1	0	0	1 1	0	0	1	1 1	1 0	1	0 (	0 0	0	0 1	0	1	0	1 0	1	19	47,5	Poor
16		1 0	0	0 1	1	0	1 1	0	0	1	0	0 1	1	0	1	1 (	0	0	1	0 0	) 1	0	0	1 1	0	0 1	0	1	1	0 0	1	18	45	Poor
17		1 1		0 1	1		0 1	0	1	0	0	1 1	1	0	0	1 1		1		0 1		1	0	1 0		0 1	0	1	0	1 0	1	21	52,5	Average
18		1 1		1 1	•		1 1	0	0	0		0 1	0	0	0	1 (		1	-	0 1		1	1		•	0 1	1	-	•	0 0	1	22	55	_
19		0 1		1 1			1 1			0		0 0	0	1	0	1 (				0 1			0			1 1	1			1 0	0	20	50	Average
20		0 1	0	1 0		0		1	0	0		0 0		1	0	1 (				0 1			0	1 1	1	1 1	1	0	1	1 0	0		45	Average
20	1	0 1	U	1 0	U	U	1 1	1	U	U	U	0 0	U	1	U	1 (	U	1	U	0 1	U	U	0	1   1	1	1 1	1	U	I	1 0	U	18	43	Poor
21	1			1 0			0 1	1	0	1	1	0 1	1	1	0	1 1		1		0 1	1	0	0 (	0 1	0	1 0	0	0	0	0 1	1	21	52,5	Average
22		0 1		1 0			1 1			0		0 1	0	1	0	1 (	0		1	0 1		1	1 1			1 1	1			1 0	1	26	65	Good
23	0			0 0			0 0			0		1 0	1	1	0	0 1		0		1 (		1	0 (			1 1	0		-	1 1	0	17	42,5	Poor
24	1			0 0			0 1	-	0	1	-	0 1	1	1	0	1 (		1		0 1		0	1 1			1 1	0	1	0	1 0	0	21	52,5	Average
25 26		0 1		1 1	0	0	1 (	1	0	0	-	1 0	0	1	0	1 (	-	0	-	0 1		1	0	1 0		1 0	0	1	0	1 0	0	18 21	45 52,5	Poor Average
27	0			1 1	1	1	1 0	1	0	1	0	1 1	1	0	1	1 1	1	0	1	1 1	1 1	1	0	1 1	0	1 1	0	1	1	0 1	0	26	65	Good
28		1 1	1	0 0	1	0	1 1	1	0	1	0	1 0	1	1	0	0 0	0	1	0	1 (	) 1	0	1	1 0		0 1	0	0	0	1 1	0	21	52,5	Average
29	1	1 1	1	1 0	0	1	1 1	1	1	1	1	1 0	1	1	1	1 (	1	1	1	1 (	0	1	1 (	0 0	0	1 1	1	0	1	1 1	0	29	72,5	Good
30		0 0	•	1 0	1	1	1 1	1	0	1	1	1 1	1	0	1	1 (	1	0	0	1 (	) 1	0	0 1	1 0	1	1 1	1	0	0	0 1	0	24	60	Good
31		1 1		1 1	1	1	1 1	0	0	1	0	1 0	0	0	0	0 1	1	1	0	0 1	0	1	1	1 1	1	1 1	1	0	0	1 1	0	25	62,5	Good
32		0 0	•	0 1	1	1	1 (	1	1	1	0	1 0	1	1	1	0 0	1	1	1	1 (	) 1	1	0 (	0 1	1	1 1	1	0	1	1 1	0	28 19	70 47,5	Good
34		0 1	1	1 1	1	1	1 1	1	0	1	0	0 0	1	1	0	0 1	0	1	1	0 1	1 1	1	0 (	0 0	1	1 1	0	1	1	1 1	0	26	65	Poor Good
35		1 0	1	1 0	1	1	1 1	1	0	1	0	0 1	1	1	1	1 (	1	1	1	1 (	0	1	1 (	0 0	1	1 1	0	0	0	1 1	0	25	62,5	Good
36		1 0	1	1 0	1	1	0 0	1	1	0	0	1 0	1	1	0	0 1	0	1	1	1 (	0	1	1 (	0 0	1	1 0	0	0	0	0 1	1	21	52,5	Average
37	0	0 0	0	1 1	0	1	1 (	1	0	0	1	0 1	0	1	1	1 1	1	1	1	1 1	0	0	1	1 1	0	1 1	0	0	1	0 1	0	23	57,5	Average
38	1		-	1 1	1	0	1 (	0	0	1	1	1 1	0	1	0	0 (		0	•	0 1	0	1	1	1 0		1 0	1	0	0	1 0	0	19	47,5	Poor
39 40	0	0 1		1 0	0	1	1 1	1	0	0	•	1 1	0	0	0	0 0		0	0	1 1	•	1	1	1 0		1 0	0	0	0	1 1	0	26 18	65 45	Good
+0	- 0	0 1	U	1 1	U	1	1 1	1	U	U	1	0 0	U	1	U	0 (	U	U	U	1 (	, 0	1	1	1 0	1	1 0	U	U	1		U	10	40	Poor
41	0			1 1			1 0		0	0		0 0	0	0	1	0 0		1	-	1 0		1	0 (			1 0	1	_	-	1 1	0	20	50	Average
42		1 0		1 0			1 1	-	0	1		1 1	0	1	1	1 0		1	-	1 1		0	0 (			1 1	0		-	0 1	1	26	65	Good
43 44		0 0		0 0	1		0 1	_	0	1	-	1 1	1	0	1	1 1	1	1	1	1 1	0	0	0 1	1 1	0	1 1	0	1	•	0 1	0	26 26	65 65	Good
45		1 0	1	1 1	1		1 0		0	1	-	1 0	1	1	1	0 0	1	0	1	1 0	) 0	0	0 1	1 1		1 1	1	0	1	0 1	0	21	52,5	Good Average
46		0 0	0	1 1	1	-	0 1	1	1	1	-	0 0	1	1	1	1 1	0	1	1	1 0	0 0	0	1 1	1 1	0	0 1	1	0	0	0 1	1	23	57,5	Average
47	1	1 0	1	1 0	1	1	1 1	1	0	1	0	1 0	1	0	0	1 0	0	0	0	1 1	1	1	1 (	0 0	1	1 0	1	1	1	1 0	1	25	62,5	Good
48		0 0	0	1 0	1	1	1 0	1	0	1	1	0 1	1	0	1	0 0	1	1	0	1 1	1	0	1 1	1 0	0	1 0	0	0	0	0 1	1	21	52,5	Average
49		0 0	0	0 0	0	1	0 1	1	0	1	0	1 0	0	1	0	1 0	1	1	1	1 1	1	1	0 1	1 1	1	1 0	1	1	0	0 1	1	23	57,5	Average
50 51		1 1 0 0	1	1 0	1	1	1 0	1	0	1	1	1 0	0	0	0	1 0	0	0	1	0 0	0	1	0 1	1 0	0	1 1	0	0	0	1 1	0	20 29	50 72,5	Average
52		0 0	0	1 1	1	1	0 1	1	0	1	0	0 0	0	1	1	0 0	0	1	1 1	0 1	1	0	1 1	1 1	1	1 1	1	0	0	0 0	0	21	52,5	Good Averag
53		0 0	0	1 0	1	0	1 0	1	0	1	0	1 0	1	0	0	0 1	1	1	1	0 0	0	0	1 1	1 0	1	1 0	0	0	1	1 0	0	18	45	Poor
54	1	0 1	0	1 0	1	1	1 1	1	0	1	1	0 1	1	0	1	0 0	1	1	0	1 0	1	0	1 1	1 1	1	0 1	0	1	0	0 1	0	24	60	Good
55		0 0	1	1 0	0	1	1 1	. 1	0	1	0	0 1	1	0	1	1 1	1	0	1	1 0	0	1	0 (	0 0	0	1 1	1	0	1	1 0	0	22	55	Averag
56		0 0	0	0 1	0	1	1 1	. 1	0	0	0	0 1	1	1	0	1 0	0	1	0	0 0	) 1	0	0 (	0 1	0	1 1	0	1	1	0 1	0	18	45	Poor
57 58		0 0	0	0 1	1	•	1 1 0 0	1	1	1	0	0 1	1	1	0	1 1	1	0	0	0 0	0	0	0 1	0 0	0	1 1	1	0	1	1 0	0	24 24	60	Good
59		0 0		0 0	1		0 0	1	0	1	•	0 1	1	1	1	0 1		1		1 1		0	1 1		-	1 1	1	0	0	1 1	1	24	60	Good
60		1 1	1		1	1	1 1	0	0	1		0 0	0	0	0	0 1		1		0 1	0	1	1 (			0 0	0		0	1 0	1	17	42,5	Poor
61	0	0 0	0	1 1	1	1	0 1	1	0	0	0	1 1	0	0	1	0 (	1	1	٥	1 1	1 0	1	1	0 0	1	1 1	1	٥	1	0 1	0.	21	52,5	Average
61		0 0		1 1 0 0			0 1			0		1 1	0	0	1	0 (		0			1 0			0 0		1 1				0 1	0	21 22	52,5 55	Averag Averag
63		0 0			1		0 1					1 1		0	0	0 1	1	1		1 (			1	1 1		1 1				0 1	0	22	55	Averag
64	0	0 0					0 1	1	0	1	0	0 1	0	0	1	1 (	1	1	1	1 (	0 0	0	1	0 1	0	1 1	0	1	1	0 1	1	19	47,5	Poor
65		0 0		1 0	1		1 (		0	1		0 1	1	1	1	1 (			1		1 0			1 0		1 1	0	1	0	1 1	1	24	60	Good
66		1 0								1		0 1	0	0	1	1 (					0 1			0 1		1 1				1 1	U	. 24	60	Good
67		1 0					1 1			0		1 1	0	0	0	0 (				0 1				1 0		1 0				1 0	1	. 19	47,5	Poor
		1 0 0 0		0 1 1 0			1 1 0 1			0		1 1 1 0	0	0	0	1 (				0 1	1 0			1 1 0 1		1 1				0 0	0		45 45	Poor Poor
	1				0		0 0			1		0 1	0	0	1	1 (					1 0			0 0		1 0				1 1	0	20	50	Averag
69		0 0		0 0			0 0			1		1 0	1	1	1	0 1				1 (				1 1		1 1				0 1	1 1	23	57,5	Averag
69 70				0 0						0		0 1	1	0	1	1 (				0 (				0 0		1 1				0 0	1 1	19	47,5	Poor
68 69 70 71 72		0 0	0	1 0	1	0	0 1	1	0	1	1	0 1	1	1	0	1 1	1	1	1	0 (	) 1	0	0	0 1	0	1 0	0	1	0	0 1	0 '	20	50	Averag
70 71 72 73	1	0 0		1 0			0 1			0		1 0	1	1	0	1 (					1 1			0 1		1 1	1			1 1	1	. 23	57,5	Averag
70 71 72 73 74	1			1   0	0					1		0 0	0	1	1	1 1					1 0			1 1		1 1				1 0	U	24	60	Good
70 71 72 73 74 75	1 1 0	1 0																																
69 70 71 72 73 74 75 76	1 1 0	1 0 0 0	1	0 1								0 1	1	1	1	0 1					0			0 1		1 0	0			0 0	0	19	47,5	Poor
69 70 71 72 73 74 75 76 77	1 1 0 1 0	1 0 0 0 0 0	1	0 1 1 0	1	1	1 1	1	0	1	0	1 1	1	1	1	0 1	. 0	0	0	1 (	) 1	1	1	1 1	0	1 0	1	0	1	0 0	1	24	60	Good
69 70 71 72 73 74 75 76	1 0 1 0 1	1 0 0 0	1 1 0	0 1 1 0 0 1	0	1	1 1	1 1	0	0	0		1				0	0	0	0 1	1 1	1	1	1 1 0 0	0		1	0	1		1	24 24		

81	1	1 1	0	0	1	1 (	)	1 (	0 (	0	) (	0	0	0	0	1	0	0	1	1	1	0	1	1	0	0	0	0	1	1	1	0	1	1	1	1	0	0	0	0	18	45	Poor
82	0	) 1	1	0	0	0	1	0 1	1	1	. (	0	0	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	23	57,5	Average
83	- 1	1 (	0	0	0	1	1	1 1	1	1	. (	0	1	1	1	1	1	0	0	1	0	0	1	1	1	0	1	1	1	0	1	1	1	0	0	1	0	1	0	0	24	60	Good
84	0	) (	0	0	0	0	1	1 (	0 (	1	. (	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	0	0	0	0	1	0	20	50	Average
85	0	) (	0	0	1	0 (	)	1 (	1	1	. (	0	1	0	0	1	0	1	1	0	0	1	1	1	1	0	0	1	0	1	0	0	1	1	1	1	0	0	1	1	20	50	Average
86	1	1 (	0	0	1	0	1	1 (	0	1	. (	0	1	0	0	0	0	1	1	0	0	1	1	0	1	0	1	0	0	0	0	1	1	1	1	0	0	0	1	1	18	45	Poor
87	1	1 1	1	1	0	1 (	)	1 1	1	1	. (	0	1	0	1	0	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	0	1	0	1	1	1	0	1	1	29	72,5	Good
88	1	1 (	1	0	0	0	1	1 1	1	1	. (	0	1	0	1	0	1	1	0	1	1	1	1	0	0	1	1	0	1	1	1	0	1	1	0	1	1	0	0	1	25	62,5	Good
89	0	) (	0	0	1	0	1	1 1	1	1	. (	0	0	0	1	0	1	1	0	0	1	1	0	0	1	1	0	1	0	0	1	0	1	0	0	1	1	1	1	1	21	52,5	Average
90	1	1 (	1	0	1	0	1	0 0	1	1	. (	0	0	0	0	1	0	0	1	1	1	1	0	0	1	1	. 0	1	1	0	1	0	1	0	1	0	0	1	0	1	20	50	Average
91	1	1 (	0	1	0	1	1	1 (	1	1		1	0	0	0	1	0	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0	1	0	1	1	1	0	0	0	24	60	Good
92	1	1 (	0	0	0	0 (	)	1 1	. 0	1	. (	0	0	1	0	1	1	0	1	1	0	0	1	1	1	0	0	1	1	0	0	0	0	1	1	1	1	1	1	1	21	52,5	Average
93	0	) (	1	1	1	1 (	)	0 1	. 0	1	. (	0	0	1	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	0	0	16	40	Poor
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96	1	1 1	1	1	1	1	1	0 1	1	0	)	1	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	18	45	Poor
97	1	1 1	0	0	0	0	1	0 1	1	1		1	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	0	0	1	0	1	22	55	Average
98	1	1 1	0	1	1	1	1	1 1	0	1		1	0	0	0	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	0	1	0	0	1	1	0	1	1	26	65	Good
99	0	) 1	0	0	0	0 (	)	1 (	1	1		1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1	0	1	0	0	0	1	0	0	0	0	1	13	32,5	Poor
100	1	1 (	0	1	0	1	1	1 1	0	1		1	0	0	0	0	0	0	1	1	0	0	1	1	0	1	1	1	0	1	1	0	0	1	1	1	1	0	1	0	22	55	Average
101	1	1 (	0 0	0	0	0 (	1	1 1	1	0		0	1	0	1	0	0	1	1	1	1	0	1	1	0	1	1	0	0	0	0	0	1	0	0	0	1	1	1	1	19	47,5	Poor
102			0			•	1	0 1	1	1		0	1	0	0	1	1	0	0	0	1	1	1	1	0	1	1	0	1	0	1	1	0	0	0	0	1	0	1	1	22	55	Average

#### READING COMPREHENSION TEST

# Time: 55 Minutes 50 Questions

#### Directions

In this section, you will read a number of passage. Each one is followed by approximately ten questions about it. For questions 1-50, choose the *one* best answer, (A), (B), (C), or (D), to each question. Then, find the number of the question on your answer sheet, and fill in the space that corresponds to the letter of the answer you have chosen. Answer all questions following a passage on the basis of what is *stated* or *implied* in that passage.

#### Questions 1 through 3 are based on the following passage.

The food we eat seems to have profound effects on our health. Although science has made enormous steps in making food more fit to eat, it has, at the same time, made many food unfit to eat. Some research has shown that perhaps eighty percent of all human illnesses are related to diet and forty percent of cancer is related to the diet as well, especially cancer of the colon. People of different cultures are more prone to contract certain illnesses because of the characteristic foods they consume.

That food is related to illness is not a new discovery. In 1945, government researchers realized that nitrates and nitrites (commonly used to preserve color in means) as well as other food additives caused cancer. Yet, these carcinogenic additives remain in our food, and it lecomes more difficult all the time to know which ingredients on the packaging labels of processed food are helpful or harmful.

The additives that we eat are not all so direct. Farmers often give penicillin to cattle and poultry, and because of this, penicillin has been found in the milk of treated cows. Sometimes similar drugs are administered to animals not for medicinal purposes, but for (15) financial reasons. The farmers are simply trying to fatten the animals in order to obtain a higher price on the market. Although the Food and Drug Administration (FDA) has tried repeatedly to control these procedures, the practices continue.

A healthy diet is directly related to good health. Often we are unaware of detrimental substance we ingest. Sometimes well-meaning farmers or others who do not realize the (20) consequences add these substances to food without our knowledge.

- What are nitrates used for?
- (A) They preserve flavor in packaged foods.
- (B) They preserve the color of meats.
- (C) They are the objects of research.
- (D) They cause the animals to become fatter.
- All of the following statements are true EXPECT
- (A) Drugs are always given to animals for medical reasons
- (B) Some of the additives in our food are added to the food itself and some are given to the living animals
- (C) Researchers have known about the potential hazards of food additives for more than forty-five years
- (D) Food may cause forty percent of the cancer in the world
- 3. In line 2, the word "fit" is closest in meaning to
- (A) Athletic
- (B) Suitable
- (C) Tasty
- (D) Adaptable

#### Questions 4 through 13 are based on the following passage.

The ancient Egyptians firmly believed in the afterlife and spent their time on earth preparing for it. Elaborate burial ritual included preparing the burial site, providing for all of the deceased's material needs (food, clothing, jewels, and tools of their trade), and preserving the corpse so that it would not decay. This preservation was accomplished through a process of mummification. The ancients left no written accounts as to the execution of this process, so scientists have had to examine mummies and establish their own theories. The embalming process might have taken up to seventy days for the pharaohs and nobility and only a few days for the poor.

The embalmers spread a variety of compounds of salt, spices, and resins in and over the corpse to preserve it. They followed this with a prescribed wrapping, a procedure in which they wound strips of fine linen around, over, and under the body while placing various amulets within the wrapping to protect the deceased from harm on the long journey to afterlife. They also painted resins over the wrapped linen. Finally, a pharaoh or noble would have been encased in a wooden box before being placed in a sarcophagus.

- 4. How have we been able to learn about the mummification process?
- (A) Accurate records have been handed down to us.
- (B) Interviews with embalmers who still use the process have revealed the secret.
- (C) After studying mummies, scientist have developed their own theories.
- (D) Chemical analysis of the compounds has led us to an explanation of the method used.

(A) Embalmers		(C) Pharaohs	
(B) Spices		(D) The poor	
6. The embalming p (A) Lengthy and com (B) Short and simple (C) Strict and unfalte (D) Wild and terrifying	ring	described as	
7. The word "decay	" in line 4 is closes	st in meaning to	
(A)Die		(C) Embalm	
(B) Deteriorate		(D) Rejuvena	ate
8. All of the follow (A) Bodies were pres (B) All mummificatio (C) Special compoun (D) It has been difficu	on took seventy day d were used to emb	f religious belief as to complete palm the bodies	
<ul><li>(A) To preserve the b</li><li>(B) To scare tomb rol</li><li>(C) To encase the boo</li></ul>	ody from destruction bbers dy in a sarcophagus		
deceased because (A) The family did no (B) That was the wish (C) They were afraid	e ot want anyone else n of the deceased	s buried food, clothing, jo to share them	ewels, and tools with the
11. The word "amule	ets" in line 12 is clo	osest in meaning to	8
(A) Weapons	(B) Coins	(C) Charms	(D) Curses
12. In line 4, "accom (A) Performed	nplished" is closest (B) Forsaken	in meaning to (C) Reproduced	(D) Dwindled
		3	
		-	

5. The word "they" in line 10 refers to

13. The distinction between mummification of bodies from different classes is explained in lines

(A)2-4

(B) 6-8

(C) 9-10

(D) 10-13

#### Questions 14 through 21 are based on the following passage.

A tapeworm is a parasite that lives in the intestines of humans and animals. Some tapeworms attach themselves to the intestinal wall by means of suckers in their heads. Others float freely in the intestines and absorb food through the walls of their bodies.

- A tapeworm consists of numerous segments. When a new segment forms, the older ones move to the back of the animal. Each segment contains hermaphroditic sexual organs (that is, male and female organs). The uterus of each segment fills with eggs, which develop into embryos. Generally, when the eggs are ready to hatch, the segment breaks off and is eliminated through the host's excretory system. These embryos hatch, develop into larvae, and grow to adults only if ingested by an intermediate host.
- (10) One may be infected by tapeworms by eating undercooked beef, pork, or fish. Symptoms include irregular appetite, abdominal discomfort, anemia, weakness, and nervousness.
  - 14. The passage implies that all of the following are true EXPECT
  - (A) An embryo will cease to develop if not ingested by a host
  - (B) A tapeworm will continue to live even when segments break off
  - (C) The segment farthest back on the tail is the oldest
  - (D) Tapeworms always float freely in the digestive system
  - 15. The word "eliminated" in line 8 is closest in meaning to
  - (A) Ingested
- (B) Expelled
- (C) Eaten

(D) Grown

- 16. A hermaphrodite is
- (A) A tapeworm
- (B) A segment containing an embryo
- (C) A being that contains male and female sexual organs
- (D) An animal made of segments
- 17. Which of the following is probably NOT a symptom of tapeworm infestation?
- (A) Unusual eating habits
- (B) Excitability
- (C) Deficiency of red blood cells
- (D) Euphoria

- 18. Which of the following statements is true?
- (A) A tapeworm uterus contains one egg
- (B) Overcooked beef is a cause of tapeworms
- (C) A male tapeworm must always be ingested before reproduction will occur
- (D) Tapeworms vary in their methods of ingesting food
- 19. What would be the best title for this reading passage?
- (A) Parasites
- (B) Reproduction of the Tapeworm
- (C) The Tapeworm, a Harmful Parasite
- (D) Segmented Parasites
- 20. A tapeworm attaches itself to the intestinal wall by
- (A) Suction
- (B) Liquid
- (C) Food
- (D) Teeth
- 21. In line 4, the word "segments" is closest in meaning to
- (A) Type:
- (B) Sections
- (C) Organs
- (D) Worms

#### Questions 22 through 28 are based on the following passage.

After inventing dynamite, Swedish-born Alfred Nobel became a very rich man. However, he foresaw its universally destructive powers too late. Nobel preferred not to be remembered as the invertor of dynamite, so in 1895, just two weeks before his death, he created a fund to be used for awarding prizes to people who had made worthwhile contributions to humanity. Originally there were five awards: literature, physics, chemistry, medicine, and peace. Economics was added in 1968, just sixty-seven years after the first awards ceremony.

Nobel's original legacy of nine million dollars was invested, and the interest on this sum is used for the awards which vary from \$30.000 to \$125.000.

(10) Every year on December 10, the anniversary of Nobel's death, the awards (gold medal, illuminated diploma, and money) are presented to the winners. Sometimes politics plays an important role in the judge's decisions. Americans have won numerous science awards, but relatively few literature prizes.

No awards were presented from 1940 to 1942 at the beginning of World War II. Some people have won two prizes, but this is rare; others have shared their prizes.

- 22. The word "foresaw" in line 2 is nearest in meaning to
- (A) Prevailed
- (B) postponed
- (C) prevented
- (D) predicted
- 23. The Nobel Prize was established in order to

- (A) Recognize worthwhile contributions to humanity (B) Resolve political differences
- (C) Honor the invertor of dynamite
- (D) Spend money
- 24. In which area have Americans received the most awards?

(A) Literature

- (B) Peace
- (C) Economics
- (D) Science
- 25. In how many fields are prizes bestowed?

(A)2

(B) 5 (C) 6 (D) 10

- 26. It is implied that Nobel's profession was in
- (A) Economics
- (B) Medicine
- (C) Literature
- (D) Science
- 27. In line 4, "worthwhile" is closest in meaning to

(A) Economic

(B) Prestigious

(C) Trivial

(D) Valuable

- 28. The word "legacy" in line 8 means most nearly the same as
- (B) Bequest
- (C) Prize
- (D) Debt

#### Questions 29 through 36 are based on the following passage.

Ever since humans have inhabited the earth, they have made use of various forms of communication. Generally, this expression of thoughts and feelings has been in the form of oral speech. When there is a language barrier, communication is accomplished through sign language in which motions stand for letters, words, and ideas. Tourists, the deaf, and the (5) mute have had to resort to this form of expression. Many of these symbols of whole words are very picturesque and exact and can be used internationally; spelling, however, cannot.

Body language transmits ideas or thoughts by certain actions, either intentionally or unintentionally. A wink can be a way of flirting or indicating that the party is only joking. A nod signifies approval, while shaking the head indicates a negative reaction.

Other forms of nonlinguistic language can be found in Braille (a system of raised dots (10)read with the fingertips), signal flags, Morse code, and smoke signals. Road maps and picture signs also guide, warn, and instruct people.

While verbalization is the most common form of language, other systems and techniques also express human thoughts and feelings.

- 29. Which of the following best summarizes this passage?
- (A) When language is a barrier, people will find other forms of communication.
- (B) Everybody uses only one form of communication.

30. The word "these (A) Tourist (B) The deaf and the (C) Thoughts and fe (D) Sign language m	mute elings	rs to	
<ul><li>(A) There are many</li><li>(B) Verbalization is</li><li>(C) The deaf and mu</li></ul>	forms of comm the most comm te use an oral f	are true EXCPET unication in existence on form of communica- form of communication mitted by body language	ation
32. Which form ot people?	her than oral s	speech would be most	commonly used among blind
(A) Picture signs	(B) Braille	(C) Body language	(D) Signal Flags
33. How many differ (A)5	erent forms of c (B) 7	ommunication are mer	ntioned here? (D) 11
34. The word "wind (A) Close one eye by (B) Close two eyes by (C) Bob the head up (D) Shake the head to	riefly oriefly and down	ns most nearly the sam	e as
35. Sign language in EXCEPT for	s said to be very	y picturesque and exact	and can be used internationally
(A) Spelling	(B) Ideas	(C) Whole words	(D) Expressions
36. People need to (A) Create language (B) Keep from readi (C) Be picturesque a (D) Express thought	barriers ing with their fi and exact		

7

(C) Nonlinguistic language is invaluable to foreigners.

(D) Although other forms of communication exist, verbalization is the fastest.

#### Questions 37 through 43 are based on the following passage.

Gelatin is a protein substance that comes from the skins and bones of animals. Most people know it as the substance used to make a jellylike salad or dessert. Not only is it useful in making these foods, but it is also beneficial to the consumer because of its high protein content. Gelatin is also commonly used in the photographic industry and in making (5) medicinal capsules.

The process for producing gelatin is a long and complex one. In the processing of gelatin made from bones (which varies slightly from that of gelatin made from skin), the grease first must be eliminated. Then the boners are soaked in a solution of hydrochloric acid in order to rid them of minerals and washed several times in water. Next, the bones are placed in distilled water, heated to over 90°F for a few hours, placed in fresh distilled water, and then heated again at a little over 100°F. A fluid forms this heating, and it is concentrated, chilled, and sliced. Finally, it is dried and ground. In its final form, gelatin is white, tasteless, and odorless.

- 37. It can be inferred from this reading passage that
- (A) One could easily make gelatin at home
- (B) It is necessary to add minerals to the gelatin
- (C) Fat aids in making good gelatin
- (D) Gelatin is useful for elderly and ill people because it is easy to chew and high in protein
- 38. Which of the following would be the best title for this passage?
- (A) The process of making gelatin
- (B) Protein foods
- (C) Uses for bones
- (D) A great dessert
- 39. All of the following industries are mentioned as using gelatin EXPECT
- (A) The lawn care industry
- (B) The photographic industry
- (C) The pharmaceutical industry
- (D) The food industry
- 40. According to the passage, why is eating gelatin healthy?
  - (A) It is does not damage the teeth
  - (B) It is low fat
  - (C) It is protein rich
  - (D) It has no animal by products

41. The word "ground" in line 12 is closest in meaning to

(A) Refrigerated

(B) Pulverized

(C) Putrified

(D) Dirtied

42. The word "that" in line 7 refers to

(A) Gelatin

(B) Processing

(C) Skin

(D) Bones

#### Questions 44 through 50 are based on the following passage.

In recent years, scientific and technological developments have drastically changed human life on our planet, as well as our views both of ourselves as individuals in society and of the universe as a whole. Perhaps one of the most profound developments of the 1970s was the discovery of recombinant DNA technology, which allows scientist to introduce genetic (5) material (or genes) from one organism into another. In its simplest form, the technology requires the isolation of a piece of DNA, either directly from the DNA of the organism under study or artificially synthesized from an RNA template by using a viral enzyme called reverse transcriptase. This piece of DNA is then ligated to a fragment of bacterial DNA which has the capacity to replicate itself independently. The recombinant molecule thus produced can be introduced into the common intestinal bacterium *Escherichia coli*, which can be grown in very large amounts in synthetic media. Under proper conditions, the foreign gene will not only replicate in the bacteria, but also express itself, through the process of transcription and translation, to give rise to large amounts of the specific protein coded by the foreign gene.

(15) The technology has already been successfully applied to the production of several therapeutically important biomolecules, such as insulin, interferon, and growth hormones. Many other important applications are under detailed investigation in laboratories throughout the world.

- 43. Recombinant DNA technology consists primarily of
- (A) Producing several therapeutically important biomolecules
- (B) Giving rise to large amounts of protein
- (C) Introducing genetic material from one organism into another
- (D) Using a viral enzyme called reverse transcriptase
- 44. The word "profound" in line 3 is closest in meaning to

(A) Significant (B)

(B) Boring

(C) Dangerous

(D) Secret

45. In line 6, the word "isolation" is closest in meaning to

(A) Destruction

(B) Duplication

(C) Segregation

(D) Study

	FF31 1 441	199 .	1' 0	*1	in manning to	
46	The word	roated" in	line x	is closest	in meaning to	,

- (A) Interested
- (B) Cut
- (C) Elevated
- (D) Bound
- 47. Which of the following is NOT true?
- (A) The foreign gene will replicate in the bacteria, but it will not express itself through transcription and translation
- (B) The bacterium Escherichia coli can be grown in large amounts in synthetic media
- (C) Research continues in an effort to find other uses for this technology
- (D) Recombinant DNA technology is a recent development
- 48. In line 8, the word "fragment" is nearest in meaning to
  - (A) Particle
- (B) Reproduction
- (C) Opposite
- (D) Large piece
- 49. Expression of a gene in Escherichia coli requires
- (A) The viral enzyme reverse transcriptase
- (B) The processes of transcription and translation
- (C) Production of insulin and other biomolecules
- (D) That the bacteria be grown in a synthetic media
- 50. The term "recombinant" is used because
- (A) By ligation, a recombinant molecule is produced, which has the capacity of replication
- (B) The technique requires the combination of several types of technology
- (C) By ligation, a recombination protein is produced; part of whole amino acids come from each different organism
- (D) Escherichia coli is a recombinant organism

Name :	R	READING COMPREHENSION TEST
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<b>A B C D</b>	University:	
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	2	
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# The Score of Student's Reading Comprehension Achievement

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