

Assessment of Reading Comprehension of Saudi Students Majoring in English at Qassim University, Saudi Arabia

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Abstract

Recent studies have shown that there has been a continual decline in the average reading ability of college-aged students with approximately one third of a four-year college students considered “at risk” for low academic attainment. The current study assesses English reading comprehension of senior Saudi students majoring in English and Translation in fall 2012 at Qassim University, Saudi Arabia. The study, moreover, investigates the potential impacts of students’ age and GPAs on their reading comprehension. One hundred three students participated in the study in which quantitative method was used. Two reading passages with different length and topics were given to the students followed by 10 multiple questions for each passage. Major findings of the study indicate that 1) participants of the study showed an overall low reading comprehension $X= 9.8$, 2) GPA was found a statistically significant factor that impacted students’ reading comprehension, 3) students’ age, on the other hand, had no significant effect, 4) reading courses at the mentioned department seemed to generally focus on reading strategies whereas they should have adequately considered comprehension instruction since reading and decoding words without comprehension becomes meaningless.

Key words: Assessment; Reading comprehension; English

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INTRODUCTION

Reading is considered to be a necessary skill for survival in life, and as such, a foundational skill for academic success (Dearman & Davis, 1990; Pugh, Pawan, & Antommarchi, 2000). Moreover, with the expansion of social media and foreign interconnectedness, mastering an adequate level of reading comprehension in English is becoming more crucial (Alshumaimeri, 2008; Kern, 2006). However, there has been a continual decline in the average reading ability of college-aged students (Breneman, 1998, Cook, 2006). In a report published by U.S. Department of Education (2004), for instance, estimated that approximately one third of high school students who enroll in a four-year college within two years of high school graduation considered “at risk” for low academic attainment.

Moreover, in an assessment of adult literacy in the United States published by the National Center for Education Statistics (NCES) showed that the reading skills of American adults have dramatically declined from 1992 to 2003 (NCES, 2005) despite the huge increases in funds for elementary and secondary education by both the federal and state government (Stotsky, Goering, & Jolliffe, 2010). More astonishing, NCES report indicates that the higher the educational level of the participants get, the bigger reading deficiency becomes, and the decline in their ability to read increases (NCES, 2005). If this is happening for native speakers of English, the figure would assumingly become even more disturbing for EFL learners elsewhere.

In English departments, more importantly, the goal of English education is to acculturate students with English language major skills and to improve reading speed and comprehension of students in English (Buly & Valencia, 2002). In addition, Beeson (2001) states that to successfully complete an academic program of study to become English teachers, students must be able to read, comprehend, and apply materials from textbooks and

journals. As a result, assessing reading comprehension and addressing any concerns early is critical.

Reading, as defined by Koda (2007), is a process and its goal “is to construct text meaning based on visually encoded information” (Koda, 2007, p.1). However, reading is a complex cognitive activity. Reading in first language (L1), readers use only one language, whereas reading in second language (L2); learners have at least two languages to deal with (Ovando, 2005). As a result, reading a text in second or foreign language with comprehension becomes harder and more complex and sophisticated process (García, 2003; Hudson, 2007).

1. RESEARCH PROBLEM

Crane et al. (1998) warns that college students usually come to college with reading deficits; they often arrive to colleges unable to read for details, identify main ideas, or recognize relationships among elements of a text. With the increased need for college graduates from English departments to become qualified English teachers, it is important to assess their reading comprehension. In Saudi Arabia, there have been many complaints about college graduates who lack major skills (Krieger, 2007; Baki, 2004; Al Turki & Dufuaa, 2003). With the lack of national measures, many calls for identifying measures for proficiency have been issued.

Furthermore, in its score data summary for the last 10 years, TOEFL reported that Saudi students had often been among the least performance of the Arab nations in Middle East and North Africa. In its latest report (2012), for instance, Saudi examinees got the worst scores among examinees from all other Arab nations. Saudi examinees' mean score for reading skill in particular was the worst among all other skills. More astonishing, while the average mean for TOEFL male examinees in reading regardless of their nationalities was (20) and $SD=7$, the reading mean score of Saudi examinees was way below that, $X=12$ (TOEFL Test and Data Summary, 2012). This spotlights a problem and indicates the necessity to assess reading comprehension of Saudi undergraduate students.

1.1 Research Questions

The current study attempts to answer the following questions:

- 1) What level of reading proficiency in English can Saudi senior students majoring in English and Translation at Qassim University demonstrate?
- 2) Is there a statistically significant difference in respondents' reading comprehension based on their GPA?
- 3) To what extent respondents' age impacted their reading comprehension?

1.2 Reading Comprehension

As defined by the RAND Reading Study Group (RRSG, 2002), reading comprehension is “the process

of simultaneously extracting and constructing meaning through interaction and involvement with written language” (p.11). In addition, the RRSG identifies three reading elements that need to be incorporated in order for the comprehension to occur: the reader, the text, and the purpose of reading. Therefore, reading comprehension is a process which aims “to construct meaning based on visually encoded information” (Koda, 2007, p.1).

As students read, monitoring and understanding of information facilitates the student's ability to select key elements on which to focus attention in order to make connections among themes, concepts and ideas (Thomas & Rohwer, 1986). Through the metacognitive process, the learner identifies skills and limitations needed to accomplish the task, strategies and techniques required to be applied, and initiates self-monitoring for comprehension and progress toward full understanding (Kuhn, 2000). The learner also uses recall of relevant knowledge of personal learning skills to successfully accomplish the learning task (Pintrich, 2002).

Reading with comprehension means that the readers are proficient. Proficient readers are those who “have a capacity to read a wide variety of different kinds of materials for varying purposes with comprehension even when the material is neither too easy to understand nor intrinsically interesting.” (RRSG, 2002, p.9).

2. LITERATURE REVIEW

The current study aims at assessing reading comprehension of Saudi undergraduate senior students majoring in English and Translation in fall 2012 at Qassim University, Saudi Arabia, and detecting any potential impacts of students' age and GPA on their comprehension. With regards to reading comprehension and its assessment, it is important to distinguish between the product and the process of comprehending a text. Comprehension is the product of the mental representation of the textual information in the reader's mind after he/ she has completed reading the text (Duke & Pearson, 2002; Worrell, 1990). In successful comprehension, this representation is coherent--that is, the text elements (numbers, dates, events, facts, and so on) are interconnected through semantic relations and form an integrated whole of the text. In most cases referential and causal/logical relations are central to comprehend. Referential relations establish coherence by capturing the identity of objects, persons, places and so on across text elements (e.g., the referral of pronouns), whereas causal and logical relations establish coherence by capturing the clear and hidden relations between the text elements -e.g., the action of a character in regards to his or her motivation to achieve a particular goal- (Buly & Valencia, 2002; Leach, Scarborough, & Rescorla, 2003).

However, Carrell and Grabe (2002) argue that reading texts and passages in a second language (L2) does not

require the same functional process as reading the same texts or passages in the first language (L1). L2 readers, especially those who are not advanced, translate English into their first language. Upton (1997), for instance, studied two groups of adult Japanese students enrolled in an American University. One group consisted of six less advanced students whereas the other group consisted of five advanced learners (ages 20 to 36 years old). While reading an English expository text, subjects were prompted to think-aloud in their preferred language, L1 or L2. After the think-aloud activity, subjects listened to their tape recorded protocols. In addition, they were later interviewed in Japan to explain how and what they were thinking while reading the text. The study's results show that less advanced students used more Japanese language to think-aloud than the advanced students. In fact, less advanced students regularly translated the English passage into Japanese to understand and confirm the text meaning.

In a study done by Chege Elizabeth (2012) on students in five randomly selected primary schools at Machakos District, a reading comprehension and a reasoning ability tests were administered to the students. The results of the Machakos District end of the year examinations were used as the measure of the pupils' academic performance. The study concluded that there was a strong positive correlation between academic achievement and reading comprehension. In addition, reading comprehension is related to academic performance, and reading comprehension is therefore a factor to consider for measurement and evaluation of students' academic performance. This finding illustrates the mutual impacts between the two: academic performance and reading comprehension.

Roxas's study (2011) investigated the relationship between reading proficiency and English academic achievement of 86 senior high school students of Don Bosco College. The researchers gathered the data with the use of the Posttest of CEM -English Diagnostic Tests (SY 2009-2010), and a questionnaire to measure the respondents' interest in reading, and their total grade point average in English for the school year 2009-2010 to reflect English academic achievement. Results revealed that 1) reading comprehension of the students has a significant relationship to their English academic achievement, 2) interest in reading of the students has no significant relationship to the reading proficiency or to the students' academic achievement, and 3) a moderate significant relationship was found between reading proficiency and English academic achievement at the level of .05 level ($r = .483$). This implies that high reading proficiency does not necessarily mean high academic achievement.

Most recent studies have considered students' GPAs as a predictor variable that often impacts their academic performance. Bean and Metzner (1985) tried to identify some significant factors for success in college. Upon

developing a model for the attrition of nontraditional students, they concluded that GPA, as an academic indicator, was strongly related to academic success and subsequent academic achievement in the program. The study showed that the reasons of these students to leave the academic settings were generally lied around four sets of variables: (a) academic performance, (b) psychological outcomes, (c) background and defining variable, and (d) environmental variables. Background variables, on the other hand, such as race and age, had the least impact on the decision to persist or leave the academic setting.

However, there has been an assumption that linguistic competence could not remain invariant across the adult life span (Light, 1988). Most studies have confirmed the validity of the general factor approach of age-related differences in cognitive performance. Age and its deficits, in particular, affect memory and students' ability to read and comprehend which constrains linguistic performance. As a result, age has been considered a significant factor that somehow affects the comprehension process during reading activity.

Martial et la's study (2010), for instance, tried to specify how age affects reading comprehension and language performance in terms of reading speed, working memory capacity, and inhibition capability. An individual-differences approach was used to examine the component processes that predict performance in language comprehension and verbal long-term memory tasks. A total of 151 participants aged 31-80 completed language processing tasks designed to assess reading speed, working memory, and resistance to interference. The study showed significant relationships between age and language performance; reductions in reading speed, resistance to interference, and working memory occurred as participants' age increased.

3. METHODS

The main goal of the current study is to assess reading comprehension of Saudi students who were majoring in English and Translation department in fall 2012 at Qassim University, Saudi Arabia. All respondents were males in their senior year of college. Moreover, the study investigates the potential impact of respondents' age and GPA on their reading comprehension. After excluding subjects who chose not to participate in the study, the total number of respondents was (103). To achieve the study's goal, quantitative method was used in which participants were given two reading passages with different length and topic form *Barron's Bulletin on How to Prepare for the TOEFL*, test of English as a second language, 9th edition. Each passage was followed by 10 multiple choice questions. Scores obtained could range from zero (0), if a respondent failed to answer any question correctly, to (20), if a respondent could answer all the questions correctly.

The first reading passage was about Alfred Bernhard Nobel prize and consisted of 14 lines, whereas the second reading passage was about Alaska pipeline and consisted of 32 lines. Participants were informed that they have only 15 minutes to read and answer the question for the first passage and 25 minutes for the second passage. Table (1) shows the demographic characteristics of the participants.

Table 1
Participants' Demographic Characteristics

Characteristics	N	Percent %	Rank
(n=103)			
GPA :			
< 4.51	13	12.6	3 rd
3.51-4.50	46	44.7	1 st
3.5-2.51	33	32.0	2 nd
> 2.5	11	10.7	4 th
Age :			
21-23	54	52.4	1 st
23-25	38	36.9	2 nd
<25	11	10.7	3 rd
Total	103	100%	

4. FINDINGS

The purpose of the present study is to assess English reading comprehension demonstrated by Saudi students majoring in English and Translation at Qassim University. The results of the current study are presented in accordance to the research questions, beginning with the first question.

The first research question was about the level of reading comprehension the sample of the study could demonstrate. Upon collecting the data, the results were analyzed using SPSS to assess students' reading comprehension. Table 2 below shows the mean and standard deviation for subjects' as a whole reading comprehension.

Table 2
Mean and St. Deviation for Subjects' Reading Comprehension

Source	N	M	SD	Mode	MIN	MAX
R. Com.	103	9.18	3.88	7	2	18

Table 2 gives a description of central tendency of the data set. The sample as a whole showed a relatively low reading score; the respondents' mean score in regards to their reading comprehension was 9.18 (*SD* = 3.88). In addition, as the descriptive data in the above table shows, the mode is (7), which means that the most frequently occurring reading comprehension score obtained by the subjects was (7) out of (20). This indicates that most of the subjects answered only (7) questions correctly. Moreover, as the above table also shows, subjects' reading

comprehension scores ranged from a minimum score of (2) to the highest score of (18), which means that no subject answered all the questions correctly or even missed only one. Table 3 shows the participants' scores in regards to their reading comprehension in more details.

Table 3
Participants' Reading Comprehension Scores

Source	N	Percent %	Rank
≥ 5	13	12.6	3 rd
6-10	58	56	1 st
11-15	20	19.4	2 nd
≤ 16	12	11.6	4 th

Table 3 shows that the reading comprehension scores of exactly 56% of participants ranged between 6-10. On the other hand, only Twelve students could scored higher than 15. The results might be due to the instruction in reading classes which comprehension instruction might be ignored or not adequately emphasized. Reading strategies and identifying new vocabulary might be the focus instead which open a topic for further investigation. Figure 1 below shows the overall look of the groups who scored above and under the 50 percentile.

Assesing Reading Comprehension

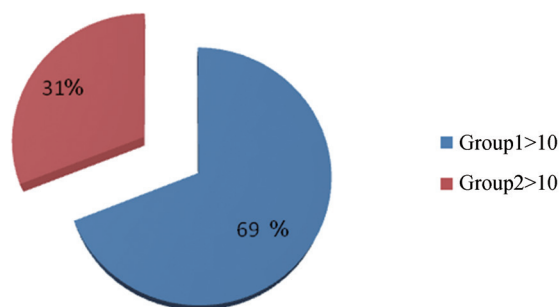


Figure 1
Students' Overall Groups in Regards to Their Reading Comprehension

As the figure shows the majority of subjects (69%) scored less than 10, while almost only the third (31%) scored higher. The highest obtained score was (18). In fact, only 12 subjects (11%) could score 16-18 as the table 3 indicates. The remaining 89% scored lower than the 75 percentile. This is not indeed a satisfactory result in which only 11% of the subjects who were majoring in English and Translation at Qassim University in their senior year had shown an acceptable level of reading proficiency. According to the 'performance feedback' in TOEFL score, scores that reach or exceed the 75 percentile are

considered in very general sense good scores (Hardin, 2014).

Answer of the second question:

The study's second question investigates the relationship between participants' reading comprehension scores and their cumulative grade point average (GPAs). At the time of conducting the study, participants had obtained variant levels of GPAs out of 5.0 point scale ranging from A level to D. At Qassim University, as in other higher educational institutions, the general overall grades for the cumulative GPA before and upon students' graduation could be as follows:

1- Excellent (A): if the cumulative GPA is no less than 4.50 out of 5.

2- Very Good (B): if the cumulative GPA is from 3.75 to less than 4.50

3- Good (C): from 2.75 to less than 3.75

4- Satisfactory (D): from 2.00 to less than 2.75

No graduation is awarded for students with less than 2.00. The following table shows the central tendency of the subjects' scores in their reading comprehension with regards to their GPAs.

Table 4
Means and St. Deviation for Subjects' Reading Comprehension with regards to their GPAs

Source	N	Percent%	M	SD	MIN	MAX
≥ 4.51	13	12.6	13.46	4.39	7	18
4.5-3.75	46	44.7	9.54	3.33	4	18
3.74-2.75	33	32.0	7.52	3.4	2	15
< 2.75	11	10.7	7.64	2.69	3	10

Table 4 indicates that the majority of participants' GPA ranged from 3.75 and above (57%), representing A or B levels. However, subjects based on their GPAs formulate four groups ranging from A to D level, in which the GPA of the first group reflects (A) level, second group reflects (B) level and so on. In addition, the GPAs of nearly half of the subjects (44%) ranged from 3.75- 4.5, which represents (B or B+) levels. The least number of participants, only (10%), falls into the (D) level.

Moreover, the above table shows that the mean of the groups is somehow associated with subjects' GPAs; the higher the GPAs gets, the higher the mean reading comprehension score of the group tends to be. In addition, table 4 clearly indicates that the subjects who got the highest scores were the ones with the highest GPAs, students in A or B levels. They also got the maximum and best minimum. Table 5 shows the result of ANOVA summary investigating the relationship between subjects' GPA and reading comprehension.

Table 5
ANOVA Summary Investigating the Relationship Between Subjects' GPAs and Reading Comprehension

Source	Df	SS	MS	F	P	R ²
Between groups	3	362.15	120.68	10.27	.000	.23
Within groups	99	1173.43	11.85			
Total	102	1535.58				

Note. N = 103

The results were analyzed using one-way ANOVA with one between-subjects factor to determine whether there was a relationship between (a) subjects' GPAs and (b) their scores on reading comprehension. The study null hypothesis, H_0 , states that in the population, there was no difference between subjects with high GPAs, B level GPA, C level GPA, and low level GPA with respect to their mean scores on the criterion variable (reading comprehension).

As Table 5 indicates, the statistical analysis revealed a significant treatment effect for subjects' GPAs, [$F(3, 99) = 10.27$, $MSN = 11.9$, $p = .0001$]. This means that there was a statistically significant difference between the mean scores of the groups in regards to their reading comprehension. In other words, subjects' GPAs, the predictor variable, had some type of effect on the criterion variable, reading comprehension in which higher subjects' GPA was associated with high reading comprehension scores.

As a result, the statistical null hypothesis, H_0 , in population, there was no statistically significant difference between subjects' GPA groups in regards to their reading comprehension scores can be rejected, as it is shown in Table 4.

In the ANOVA analysis, moreover, R^2 was computed as .23. This indicates subjects' GPAs accounts for 23% of the variance in subject's scores in reading comprehension.

Since there was statistically significant differences between subjects' reading comprehension scores based on their cumulative GPA, Tukey's HSD test was performed and reported in Table 6. However, only the significant results with alpha set at .05 or less were reported.

Table 6
Results of Tukey's Test Comparing Between Subjects' Groups

Comparison	Difference between means	Sig	95% confidence limits	
			Lower	Upper
1 - 2	3.92	.003	1.09	6.74*
1 - 3	5.95	.000	3.00	8.89*
1 - 4	5.83	.000	2.14	9.51*
2 - 3	2.03	.050	.01	4.08*

Note. N=103; *Tukey's test indicating a significant difference at $p < .05$ level or less.

Table 6 indicates Tukey's test which shows that subjects with a high GPA, (A) level, scored significantly higher on reading comprehension than did all subjects in the lower than (A) GPA groups, B, C, and D levels ($p < .05$). With alpha set at .05, moreover, there was a statistically significant difference between subjects who had (B) level GPA than subjects with (C) level GPA; subjects with B level GPA scored significantly higher on reading comprehension than subjects with C level GPAs. In addition, there were no significant differences between subjects with C level GPAs versus subjects with D level GPAs.

Answer of the third question:

The last question of the current study investigates the potential impact of subjects' age on the reading comprehension. The subjects' age had fallen into three categories at the time of conducting the study: a) subjects whose age was equal or less than 23, b) subjects whose age were between 24-25, c) subjects whose age were above 25. Table 7 shows the central tendency of the data set in regards to their reading comprehension scores.

Table 7
Means and St. Dev. of Subjects' Reading Comprehension in Regards to Their Age

Source	N	Percent %	M	SD	MIN	MAX
< 23	54	52.4	8.65	3.36	2	17
23-25	38	36.9	9.74	4.4	2	18
> 25	11	10.7	9.91	4.3	6	18

As Table 7 indicates, more than half of the study's subjects were in the age of or less than 23 years old at the time of conducting the study. Only 10% of the sample aged above than 25 years old. The mean score of reading comprehension for the study's participants in association with their age ranged from 8.65 to 9.91. However, it is clear that age had somehow an effect on reading comprehension. In other words, as table 7 shows the older the group of participants gets, the higher their reading comprehension mean score tends to be. In fact, the oldest group, whose ages were above 25, got the best reading scores ranging from 6-18. The following table indicates the ANOVA summary of the subjects' reading comprehension in regards to their age.

Table 8
ANOVA Summary Investigating Subjects' Reading Comprehension and Their Age

Source	Df	SS	MS	F	R ²
Between groups	2	32.903	16.45	1.09	.021
Within groups	100	1502.59	15.03		
Total	102	1535.49			

Note. $N = 103$ * $p = .34$

The results were analyzed using one-way ANOVA with one between-subjects factor to determine whether there was a relationship between (a) subjects' age and (b) their scores on reading comprehension. The study null hypothesis, H_0 , states that in the population, there was no difference between subjects' varying ages as indicated previously, table 7, with respect to their mean scores on the criterion variable (reading comprehension).

Table 8 clearly shows that there was not a statistically significant result; in other words, the statistical analysis revealed a nonsignificant treatment effect on subjects' age, [$F(2, 100) = 1.09, p = .34$]. This means that there was not a statistically significant difference between the mean scores of the groups in regards to their reading comprehension. In other words, subjects' age, the predictor variable, had no statistically significant effect on the criterion variable, reading comprehension. Despite the fact that there was a different between the subjects' mean reading score, the difference was not statistically significant.

Moreover, in the ANOVA summary analysis, R^2 was computed as .02, which is clearly a trivial value. This means that subjects' age accounts only for .02% of the variance in subjects' reading comprehension scores.

The difference in the mean scores of participants shown in Table 7 might be attributed to some other factor such as familiarity with the reading topics or their ability to guess the correct answers. In addition, number of the subjects whose ages were above 25 should not be ignored; there was only 10% of the total sample. Further investigated might be needed to undertake this potential effect of age as a predictor variable.

5. DISCUSSION

In the assessment of Saudi students' reading comprehension, this study found that their reading proficiency was relatively low. All participants of the current study were senior year students majoring in English and Translation. However, participants' mean reading comprehension score was below the 50 percentile; and only 31% of participants obtained scores above the mean.

This research supports what current studies have shown about the decline in the average reading ability of college-age students (Cook, 2006). Moreover, the findings of this study also support what TOEFL test data summary reported in the last 10 years in which reading score, in particular, was the least score obtained by Saudi examinees. In fact, as TOEFL reported, the mean reading scores for Saudi examinees has consistently fallen below the international and Middle Eastern examinees mean reading scores. Further investigations are needed to identify some factors for such result.

Furthermore, as stated and found by Chege (2012) and Roxas (2011), reading comprehension has generally

mutual impacts with academic performance and GPAs. Similarly, this research found that GPA was a significant factor that can often affect students' reading. As discussed, subjects' reading comprehension score increases as their GPAs go higher. Moreover, this finding might show that poor academic performance can be due to the lack of the mastery of the subject skill, reading comprehension in particular. It is highly possible that poor academic performance is due to poor reading comprehension ability.

Although some studies have emphasized the impact of age on reading proficiency since linguistic competence could not remain invariant across an adult life span (Light, 1988), this research found that age was not a significant factor. In other words, despite the fact that participants' reading comprehension mean scores differ based on their age, the differences were not statistically significant. Other factors such as familiarity with the reading topics or sufficient practice for guessing techniques might be the reasons for such differences.

Reading comprehension, the subject of current research, depends on students' ability to carefully read texts and make a precise and clear meaning, or representation, out of them. Assessing this ability is a crucial step to spot light the positive and negative aspect of the performance of the programs in terms of instruction, curriculum, teaching methods, and educational outcomes. This would definitely help to improve the educational pedagogies and outcomes.

CONCLUSION

As emphasized in many studies, assessing regularly students' reading comprehension is crucial. Proficient and struggling readers can only be identified through the assessment of reading comprehension. In many reading classes, the focus is mostly on the ability to decode words or other reading strategies. However, the ultimate goal of reading is comprehension. If a student can read fluently without comprehension, the act of reading is meaningless.

Moreover, the study's findings illustrate the need to partially switch the focus of instruction in reading classes to comprehension. This means making sure that students fully understand what is being read. It seems that comprehension instruction is lacking or not adequately emphasize in reading classes at English and Translation department at Qassim University. Using comprehension instruction requires changing some pedagogical practices and roles during and after reading activities. Teachers need to understand when and how to use this type of instruction and carefully implement it which needs further investigation.

Moreover, as a result of the study, students may validate their learning experience in the foreign language classrooms. It measures their reading competence in the foreign language that they are majoring in. Moreover,

the study provides some data for instructors and faculty members, as well as administrators, on the level of their students' reading competence and describes the potential impacts between students' age and GPAs with their reading ability and comprehension.

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