



RESEARCH PAPER

An Empirical Study of ESL Learners' Decoding Skills at Master Level in District Muzaffargarh

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ABSTRACT

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The present experimental study investigated the ESL learners' decoding skills at the master level in district Muzaffargarh. Pre and post-tests were employed as tools for data collection. The pre-test was conducted to judge the decoding ability of ESL learners. The experimental group attended an instructional session before the post-test. No vocabulary aid or decoding skill was given to the respondents of the controlled group. There was a clear difference in the decoding ability of these two groups in the results of the post-test. The results of both groups were analyzed statistically by using SPSS. The frequency and accumulative percentage of these two groups were taken out by using this software. Paired t-test was applied to find the mean difference in the results of these two groups. It was concluded that the decoding skill or reading comprehension of ESL learners can be increased by giving them contextual knowledge of the content.

Introduction

Compounding Language is a system of communication unique to human beings. The key difference between animals and humans is language. Without language, human beings would be like hairless apes. It is a sophisticated medium of communication through which humans exchange their views, feelings and emotions etc. One main factor in the development of civilization may, of course, be discerned through the development of language as a powerful communication tool. Everywhere in the world, it is used by normal human beings to convey their message and to decode the message. The process of translating from one language into another is called decoding. In the decoding process, the decoder processes the information which is stored in the "perceptual auditory storage" and draws necessary information from linguistic and non-linguistic codes. And the message is

born in this way. In the process of decoding, many factors influence the quality of interpretation. These factors include the linguistic competence of the interpreter and his background knowledge. This background knowledge includes the knowledge of the world and the knowledge of the relevant subject. Based on Naseem (2019) this study deals with the difficulties the ESL learners face in reading comprehension. It is observed that many readers face problems in understanding a text in a foreign language due to their poor vocabulary knowledge or lack of decoding techniques. There might be some other reasons as lack of authentic material, lack of strong reading culture, lack of reading strategy knowledge or it might be the use of less successful teaching methods by the teachers.

Schema theory as such describes the significant role of background knowledge in language, and reading comprehension serves as the theoretical basis for this study. It states that a text does not carry meaning by itself; rather, 'A text only provides guidelines for listeners or readers as to how they should retrieve meaning from their own prior knowledge' (Carrell, 1984, p. 332). We know that all knowledge is "culturally coded" thus, this schema is derived from one's unique social environment. The present experimental study aims at investigating the ESL learners' decoding skills at the master level in district Muzaffargarh.

Literature Review

This section reviews the literature related to the studies of correspondence between working memory, vocabulary, prior knowledge, word identification, reading strategies and motivation to read and reading comprehension for students. Elbro and Iverson (2013) examined how good students activated their previous skills so that they might construe and comprehend a text. They argued that when readers have control over decoding, knowledge of the text structure, vocabulary and verbal ability, their reading comprehension gets improved as these elements are interconnected. Cain and Oakhill (2011) examined Matthew Effect that denotes the gap between proficient and non-proficient readers which may grow over time. It takes into consideration pre-school entering factor influences students' reading skills and whatever cognitive ability they have. Another factor that may lead to Matthew Effect is that poor decoding skill motivates the students that they should try to comprehend what they have read. The ultimate result of this struggle is to motivate the students to seek pleasure in the reading process. Likewise, the students who have good word reading skills but fewer comprehension skills avoid reading. Reading can be improved only by reading more. Gilbert, Goodwin, Compton & Kearns (2013) experimented with morphological awareness and its relation to reading comprehension. Recent research has shown that knowledge of vocabulary and word-reading can facilitate the link between understanding morphological awareness and reading comprehension. According to Perfetti (2007), the lexical quality hypothesis speculates that poor readers and poor comprehension are associated. Such poor readers are expected to have a large number of poor-quality lexical representations. The final result was that the reader was not able to break the

codes from long term memory. Similarly, good readers often make lexical representations of high quality. This aids significantly in their reading comprehension. According to Antoniou and Souvignier (2007), 80% of learners with learning disabilities try to understand written text, which has been related to post-secondary and academic success. The purpose of the study was to manage an intervention program that utilized unambiguous teaching combined with self-control strategies to improve reading comprehension. The researchers specified that they estimated supporting impacts on learner's self-efficacy and strategy knowledge. Guthrie et al. (2009) revealed that motivation is completely correlated to reading achievement. On the contrary, avoidant motivation has been harmfully linked to reading achievement. To recognize the particular nuances of reading motivation, they classified readers to form reading profiles. The present research seeks to investigate the phenomenon of how ESL learners decode a text in the absence of lexical knowledge.

Material and Methods

This study is divided into two phases. A pre-test was designed for the first phase. Fifty participants studying English at the master's level appeared in this test. After the pre-test, participants were divided into two groups- The controlled group and the experimental group respectively. Before the second phase, an instructional session was arranged for the experimental group. Some basic decoding skills and vocabulary aids were given to this group however no such aid was extended to the controlled group. After the instructional session, the second phase commenced. A post-test was designed for this phase. It was the same for both groups. After this, the data were analysed. SPSS was used for statistical and objective results. T-value was measured between the responses of the controlled and experimental groups. And then the final results were drawn and suggestions were made for further research. In this way, a qualitative approach was also applied and overall this was a mixed-method approach.

Results and Discussion

Data Analysis

This section consists of three parts. The first part consists of a pre-test. In the pre-test, there are five questions of different types. The first question is about synonyms, the second is about antonyms, the third is about matching columns, the fourth is about decoding the underlined words from the paragraph and the fifth one is about translating the paragraph from English into Urdu. In the pre-test, no vocabulary aid was given to the students. Then the second part of this section is about post-test analysis. In post-test, the students were divided into two groups, controlled and experimental. Post-test also consisted of five types of questions. The first question was about synonyms, the second was about antonyms, the third was about matching columns, the fourth was about decoding the underlined words from the paragraph and the fifth one was about translating the paragraph into Urdu. The third part consists of the analysis of pre-test and post-test and as well as a controlled

group and experimental group. The paired t-test between the controlled group and the experimental group is also highlighted. The P-value of both the tests is shown as under.

Part-I Analysis of Pre-Test

Analysis of Synonyms

Table 1
Analysis of Synonyms

Synonyms	Frequency	Percentage
Satisfactory decoding	15	30.0%
Not satisfactory decoding	35	70.0%

Five different statements were given with underlined words to gather knowledge of the appropriate synonyms from the respondents finding three correct synonyms was considered to be a satisfactory decoding skill. And below three correct synonyms were considered as not satisfactory decoding skills. For the statement containing *the alpha and omega of science* the options included a) starting part of science, b) ending part of science, c) starting and ending point of science & d) I don't know. The respondents were required to choose one option having a synonym of the underlined word. The other statements contained the lexical items *to hang with the fam*, *My friend is a little gobby at times*, *the reign of lynch law* and *Politics is complete tosh*. 70% of respondents did not have satisfactory decoding in this synonym test. Only 30% of respondents performed satisfactorily at decoding. So, maximum students had poor decoding ability because of the lack of vocabulary aid and lack of contextual knowledge of important terms. All the underlined words had some specific historical context and they could not be understood without their background knowledge. The results conform to Schema theory that emphasizes contextual knowledge as a necessary aid while decoding.

Analysis of Antonyms

Similarly, learners' semantic competence was checked with reference to antonyms. The statement here has lexical items such as *The lecture which he delivered was 'all Greek' to me*, *You are so full of compliments today that you must have 'kissed the Blarney stone'*, *Reckless Rashid soon found that he had caught a Tartar in his new master*, *Considering the prevailing unrest in the country, Muhammad Tughlaq's plan to change the capital was 'a quixotic project'* and *The culture minister called Hillary Clinton a 'wazzock'*.

Table 2
Analysis of Antonyms

Antonyms	Frequency	Percentage
Satisfactory decoding	5	10.0%
Not satisfactory decoding	45	90.0%

The result of the section containing antonyms shows a fairly higher ratio of 90% of the respondents were devoid of satisfactory decoding. Again, maximum students had poor decoding ability because of the lack of vocabulary aid and lack of contextual knowledge of important terms. Like the previous question, all the underlined words had some specific historical context thus they could not be understood without their background knowledge. Schema theory also says that contextual knowledge is necessary for successful decoding.

Analysis of Matching Columns

The third item is related to the activity of matching columns. Both the columns contained the same words of American and British English. The participants were required to match the lexical items contained in two columns. Below three correct answers score was considered as a not satisfactory result. 84% of the respondents did not do satisfactory matching and only 16% had satisfactory matching. The respondents showed a weak grip on American and British English. They were unaware of the differences between both varieties of English. Most of the ESL learners did not know that the English language has many varieties that differ from each other in terms of vocabulary, grammar, pronunciation and use of punctuation etc.

Table 3
Analysis of Matching Columns

Matching Columns	Frequency	Percentage
Satisfactory matching	8	16.0%
Not satisfactory matching	42	84.0%

Analysis of decoding of underlined words in paragraph

Table 4
Analysis of Decoding of Underlined words in Paragraph

Decoding of underlined words in paragraph	Frequency	Percentage
Not satisfactory decoding	50	100.0%

The next item in the Pre-test was about decoding the underlined words from the paragraph. In this regard, a paragraph having five difficult vocabulary items was given to the students. The respondents were asked to read the paragraph and explain the underlined words. These words were, 'Roland for an Oliver', 'Jedwood justice', 'Pyrrhic victory', 'to sell his birthright for a mess of pottage' and "Loo". This was a relatively difficult task for the respondents had no options available to them. Here they were required to rely on their previous knowledge or make a rough guess. 100% of the respondents made no satisfactory decoding. Three correct answers were to be considered satisfactory decoding and below three were decided to consider not satisfactory decoding. Not even a single respondent was able to do successful and satisfactory decoding. This shows the poor decoding ability of ESL learners because

they did not know the underlined words as they were not used in their native culture.

Analysis of the translation of the paragraph

The last question in the pre-test was of translating the English paragraph into Urdu. This was a lengthy paragraph. Three parameters were set to analyze the translation as a) good translation, b) average translation and c) poor translation. No culturally specific terms and idioms were put into this paragraph. 82% of respondents had a poor translation of the paragraph, 18% had an average translation of the paragraph and not a single participant translates the paragraph up to the set criteria. This shows that the students have very poor decoding ability. There might be many reasons for this poor translation. The paragraph might be uninteresting for them. They might have low motivation for reading and translation. They might have poor vocabulary knowledge of the main words. The results show poor linguistic skills that might be accountable for their poor decoding ability. The following table shows the statistical result of this question.

Table 5
Analysis of the Translation of the Paragraph

Translating the paragraph	Frequency	Percentage
Average translation	9	18.0%
Poor translation	41	82.0%

Part-II Analysis of Post-Test

In the post-test, the respondents were divided into two groups. One was a controlled group and the other was the experimental group. A teaching session of ten weeks was organized for the latter to teach them the basic decoding skills and to give some vocabulary aids to the respondents of this group before conducting the post-test. The controlled group was not given any teaching session. The researchers tried to prove the positive effects of the teaching session on the experimental group.

Analysis of Controlled Group

The first question in the post-test for the controlled group was about synonyms. Five different statements were given with underlined words to tell the appropriate synonyms from the four options below every statement. Three correct answers were considered to be satisfactory decoding skills of the learners. A result below three correct answers was considered as not satisfactory decoding skill. The statements had *The 'halcyon days' of the British association with Asiatic and African countries have departed forever*, *The lady in whose honour they had all met is a matron in 'the sear and yellow leaf,'* *Surely there is something rotten in the state of Denmark and it is high time that the Railway authorities should clean their Augean stable*, *The two brothers look 'tweedledum and tweedledee'* and *He had 'Spartan endurance'*.

96% of the respondents made no satisfactory decoding and only 4% of the respondents were able to make satisfactory decoding. As this group did not attend teaching sessions so maximum students had poor decoding ability because of the lack of vocabulary aid and lack of contextual knowledge of important terms. All the underlined words had some specific historical context and they could not be understood without their background knowledge. Schema theory also says that contextual knowledge is necessary for successful decoding.

Table 6
Analysis of Synonyms

Synonyms	Frequency	Percentage
Satisfactory decoding	1	4.0
Not satisfactory decoding	24	96.0

Analysis of Antonyms

Similarly, five different statements were given with underlined words to tell the appropriate antonym from the four options below every statement. Again three correct answers were considered to be satisfactory decoding skills. *The Democrat's unprecedented 'balls-up' surprised everyone, The BBC Corporation gets the 'collywobbles' whenever a program is controversial, Should I do something about that? No way. 'Sips tea', Khyam gave a 'laconic' reply and I didn't expect 'oracular utterance' from him.* The result shows that 88% of the respondents showed no satisfactory decoding and only 12% of the respondents showed satisfactory decoding. Again, maximum students had poor decoding ability because of the lack of vocabulary aid and lack of contextual knowledge of important terms. Like the previous question, all the underlined words had some specific historical context and they could not be understood without their background knowledge. Schema theory also says that contextual knowledge is necessary for successful decoding.

Table 7
Analysis of Antonyms

Antonyms	Frequency	Percent
Satisfactory decoding	3	12.0%
Not satisfactory decoding	22	88.0%

Analysis of Matching the Columns

The next question in the post-test for the controlled group was of matching columns. There were two columns parallel to each other. Both the columns contained the same words from American and British English. In the first column, there were words like a) pylon b) patience c) kennel d) hoarding and e) hoover. In the second column, there were words like a) vacuum cleaner b) doghouse c) solitaire d) utility pole and e) billboard. The students were asked to match these two columns. Three correct answers were considered to have satisfactory matching. And learners with below three correct answers were considered as not satisfactory matching.

The result shows that 88% of the respondents had no satisfactory matching and 12% of the respondents had satisfactory matching. It shows the poor vocabulary knowledge of the respondents. They were given no vocabulary aid before the test as was given to the experimental group. They were less aware of the difference between American and British English. They were unaware of the differences between both varieties of English. Most ESL learners do not know that the English language has many varieties.

Table 8
Analysis of Matching the Columns

Matching Columns	Frequency	Percentage
Satisfactory matching	3	12.0
Not satisfactory matching	22	88.0

Analysis of decoding of underlined words in paragraph

The next question in the post-test for the controlled group was of decoding the underlined words in the paragraph. For this purpose, a paragraph was given to the students. Five words in this paragraph were underlined. The respondents were asked to read the paragraph and explain the underlined words. These words were, 'Aladdin's lamp', 'Rome was not built in a day', 'Acid test', 'Scylla and Charybdis', and 'Penelope's web'. This was a difficult task for the respondents as no options were given to them for the answer. So there was no chance of making a rough guess for them.

Table 9
Analysis of Decoding of Underlined words in Paragraph

Decoding of underlined words in paragraph	Frequency	Percentage
Not satisfactory decoding	25	100.0%

Again, this question had a very poor result as 100% of respondents did not make satisfactory decoding. Three correct answers were decided to consider satisfactory decoding and below three were decided to consider not satisfactory decoding. Not even a single respondent was able to do satisfactory decoding. This shows the poor decoding ability of ESL learners because they did not know these underlined words as they were not used in their cultural context.

Analysis of the Translation of a Paragraph

Table 10
Analysis of the translation of Paragraph

Translating the paragraph	Frequency	Percentage
Average translation	2	8.0%
Poor translation	23	92.0%

The last question in the post-test for the controlled group was of translation of a paragraph from an English paragraph into Urdu. Three parameters were set to analyze the translation as i) good translation, ii) average translation and iii) poor translation. No culturally specific terms and idioms were put into this paragraph. 92% of the respondents had poor translation and 8% had an average translation. There was not any good translation of this paragraph. This shows the poor decoding ability of the students.

Analysis of Experimental-group

The experimental group took this test and they were previously about basic decoding skills and vocabulary aids. The researchers also tried to increase the motivation of ESL learners for reading. After the ten weeks of coaching, a post-test was conducted from the controlled and experimental groups. There was a remarkable difference in the performance of both groups.

Analysis of Synonyms

The first question in the post-test for the experimental group was also of synonyms as we did with controlled group. Statements used here were *The halcyon days of the British association with Asiatic and African countries have departed forever*, *The lady in whose honor they had all met is a matron in 'the sear and yellow leaf'*, *Surely there is something 'rotten in the state of Denmark' and it is high time that the Railway authorities should clean their Augean stable*, *The two brothers look 'tweedledum and tweedledee'* and *He had 'Spartan endurance'*.

Table11
Analysis of Synonyms

Synonyms	Frequency	Percentage
Satisfactory decoding	24	96.0%
Not satisfactory decoding	1	4.0%

The result of this question is opposite to the result of the controlled group. 96% of the respondents made satisfactory decoding and just 4% were unable to make satisfactory decoding. This positive result is due to the teaching session that was given to the respondents of the experimental group. The respondents were given the contextual knowledge of key terms and as a result, they were better able to give good performance in post-test. As schema theory also says that contextual knowledge matters. It helps the learners to decode the meanings in the right way. Table 11 shows the statistical result of synonyms.

Analysis of Antonyms

Five different statements for this group included *The Democrat's unprecedented 'balls-up' surprised everyone*, *The BBC Corporation gets the 'collywobbles' whenever a program is controversial*, *Should I do something about that? No way*, *'Sips tea'*, *Khyam gave a 'laconic' reply* and *I didn't expect 'oracular utterance' from him*. Each statement had

four options the respondents were required to choose one correct antonym of the underlined word.

Table 12
Analysis of Antonyms

Antonyms	Frequency	Percentage
Satisfactory decoding	21	84.0%
Not satisfactory decoding	4	16.0%

84% of the respondents made satisfactory decoding and 16% of the respondents made no satisfactory decoding. Again, this shows the positive effect of a teaching session on the decoding ability of respondents. Those learners who did not get the proper lectures were unable to attempt these questions and could not make satisfactory decoding. According to schema theory, words have meanings in their context. Without contextual knowledge, learners cannot derive true meanings. The table 12 shows the statistical result of this question.

Analysis of Matching Columns

The next question in the post-test for the experimental group consisted of matching columns. The students were asked to match the lexical items of these two columns. The result of this question is also opposite to that of the controlled group. As many as 96% of the respondents made satisfactory matching and only 4% were unable to make satisfactory matching. The respondents of the experimental group showed good performance because of the vocabulary aids they received in the teaching session of the researcher. Again, schema theory proves its validity here. Table 13 shows the statistical result of antonyms.

Table 13
Analysis of Matching Columns

Matching columns	Frequency	Percentage
Satisfactory matching	24	96.0%
Not satisfactory matching	1	4.0%

Decoding of the underlined Word in Paragraph

The next question in the post-test of the experimental group was of decoding the underlined words in a paragraph. This was the same question that was given to the respondents of the Controlled group. A paragraph with five difficult underlined words was given to the respondents to read and explain the underlined words. These words were, '*Aladdin's lamp*', '*Rome was not built in a day*', '*Acid test*', '*Scylla and Charybdis*', and '*Penelope's web*'. This was a relatively difficult task for the respondents as no correct options were given to them. The respondents, however, showed good performance as they got the vocabulary aid and decoding skill in the teaching session.

Table 14
Decoding of the Underlined word in Paragraph

Decoding of underlined words in paragraph	Frequency	Percentage
Satisfactory decoding	25	100.0%

The result of this question was a hundred per cent opposite to the result of the controlled group. All the respondents made satisfactory decoding of this question. Again, due to the proper contextual knowledge and vocabulary aids from the researcher, respondents made a remarkable performance in this test.

Analysis of the Translation of the Paragraph

Table 15
Analysis of the Translation of the Paragraph

Translating the paragraph	Frequency	Percentage
Good translation	7	28.0
Average translation	14	56.0
Poor translation	4	16.0

The last question in the post-test for the experimental group was a translation of the English paragraph into Urdu. This was the same paragraph that was given to the controlled group and they showed poor performance. The result of this question is very encouraging as significant improvement in the decoding ability of the respondents can be seen here. 56% of the respondents gave an average performance, 28% of the respondents gave a good performance and 16% of the respondents gave a bad performance. Overall, there was a great improvement in the decoding skill of the respondents.

Part-III

Paired t-test between Experimental and Controlled-Group

Table 16
Paired t-test between experimental and controlled-group

Type of Question	Characteristics	Experimental group		Control group		T-statistic	P-value
		F	%	F	%		
Synonyms	Satisfactory decoding	24	96.0	1	4.0	11.500	.000
	Not Satisfactory decoding	1	4.0	24	96.0		
Antonyms	Satisfactory decoding	21	84.0	3	12.0	7.856	.000
	Not Satisfactory decoding	4	16.0	22	88.0		
Matching Columns	Satisfactory matching	21	96.0	3	12.0	11.225	.000
	Not satisfactory matching	1	4.0	22	88.0		
Decoding of	Satisfactory	25	100.0	0	0	000	.000

underlined words	decoding						
	Not Satisfactory decoding	0	0	25	100.0		
Translating the paragraph	Good translation	7	28.0	0	0		
	Average translation	14	56.0	2	8.0	7.076	.000
	Poor translation	4	16.0	23	92.0		

Table 16 shows the statistical comparison of the controlled group and experimental group. The first question was about synonyms. 4% of the respondents in the controlled group made satisfactory decoding and 96% of the respondents did not make satisfactory decoding. On the other hand, 96% of the respondents in the experimental group made satisfactory decoding and only 4% of the respondents made no satisfactory decoding. T-statistics between them is 11.50 and p-value is .000. There is a significant difference (t-value= 11.500; $p < 0.05$) between the responses of these two groups.

The second question was about antonyms. 12% of the respondents of the controlled group made satisfactory decoding while 88% of the respondents made no satisfactory decoding. On the other hand, 84% of the respondent of the experimental group made satisfactory decoding and 16% of the respondents made no satisfactory decoding. T-statistics between them is 7.856 and p-value is .000. There is a significant difference (t-value= 7.856; $p < 0.05$) between the responses of these two groups.

The third question was about matching columns. 12% of the respondents in the controlled group made satisfactory matching and 88% made not satisfactory matching. On the other hand, 96% of the respondents in the experimental group made satisfactory matching and only 4% of the respondents made no satisfactory matching. T-statistics between them is 11.225 and p-value is .000. There is a significant difference (t-value= 11.500; $p < 0.05$) between the responses of these two groups.

The next question was of decoding the underlined words in the paragraph. No respondent of the controlled group made satisfactory decoding and all the respondents made no satisfactory decoding. On the other, all the respondents of the experimental group made satisfactory decoding and no one made not satisfactory decoding. So, the t-statistics between them is .000 and the p-value is also .000.

The last question was the translation of a paragraph from English into Urdu. 8% of the respondents in a controlled group made an average translation of the paragraph, 0% made a good translation and 92% made a poor translation of the paragraph. On the other hand, 28% of the respondents in the experimental group made a good translation, 56% made an average translation and 166% of the respondents made a poor translation. T-statistics between them is 7.076 and p-value is .000. There is a significant difference (t-value= 7.076; $p < 0.05$) between the responses of these two groups.

Conclusion

The study concludes that the ESL learners face greater difficulties and lack of lexical knowledge can rightly be declared the major cause of failures in comprehension and decoding of text. The knowledge regarding synonyms, antonyms, word matching columns and translation of paragraphs from English into Urdu are commonly used strategies in the ESL classroom context. The participants engaged in the present study belong to a district of the South Punjab region and their lexical competence was assessed through the research. The findings of the research, however, fully conform to the views detailed in Schema theory that lays greater emphasis on learners' background knowledge as a potential aid in decoding the text in English. The lexical items having socio-cultural orientation, however, pose greater challenges to the non-native learners of English.

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