ADOPTING AUDIO-BASED LANGUAGE LEARNING IN ELEVATING THE READING SKILLS OF GRADE 9 STUDENTS

LEIRA MAE B. POMINTEL, LPT

leirapomintel@gmail.com
Laguna State Polytechnic University, Philippines

ABSTRACT

The purpose of this study was to elevate the reading skills of struggling readers in grade 9 students through the use of Audio-Based Language Learning. This study aimed to answer the following questions. First, what is the level of features of Audio-based language learning in terms of; relevance, comprehensibility, accuracy, catchiness and motivation. Second, what is the level of pre-reading and post-reading skills of the students in terms of; Reading comprehension and Reading Speed? Third, are there Significant Differences between the Reading Skills in terms of Reading Comprehension with regards to Pre Reading and Post Reading under: Control and Experimental group? And lastly are there Significant Differences between the Reading Skills in terms of Reading Speed with regards to Pre Reading and Post Reading under: Control and Experimental group?

Only chosen students from the grade 9 level at Pacita Complex National High School would be the subjects of the study. In this study, the researcher would use a technique called purposive sampling. Relatively speaking, in this study, purposively selected grade 9 students who would be identified to have low scores in the pretest on reading skills would be the respondents of the study.

Moreover, it also sought to test the null hypotheses; 1) There is no significant relationship between the features of audio-visual language learning and the students' reading skills in terms of Reading comprehension and Reading speed; There are no significant differences between the level of reading skills in terms of reading comprehension of experimental groups and control group; and, There are no significant differences between the level of reading skills in terms of reading speed of experimental groups; and control group.

Hence, the following results were gathered after the conduct and analysis of data.

The audio-based language learning has the condition or quality of being closely related or suitable in elevating the reading skills of students in terms of comprehension and speed. It also means that the two groups see that the audio-based language learning are all applicable in elevating the said skills.

The level of features of Audio-based language learning in terms of Relevance, Comprehensibility, Accuracy, Catchiness,; and Motivation were all seen since the responses of the students fell under strongly agree; the level of pre-reading and post-reading skills of the students in terms of Reading comprehension, and Reading speed were lower in the pre-assessments rather than post-assessment; there was no significant relationship between the features of audio-based language learning and the students' reading skills in terms of Reading comprehension, and Reading speed; There were Significant Differences between the Reading Skills in terms of Reading Comprehension with regards to Pre Reading and Post Reading under experimental groups, and control group; and, There were Significant Differences between the Reading Skills in terms of Reading Speed with regards to Pre Reading and Post Reading under experimental groups, and control group.

Keywords:

Audio-Based, elevating, mystery reader, read-aloud, relevance, comprehensibility, accuracy, motivation

INTRODUCTION

"Think before you speak. Read before you think. "

– Fran Lebowitz

Language learning is the process of learning and communicating in a foreign language. With this definition in mind, one can now consider what is meant by a "language learning definition": first, a language learning definition should identify the key elements involved in the process of language learning; and second, a language learning definition should explain how these elements interact with one another to allow language learning to occur.

Meanwhile, reading ability is the capacity to understand written stuff. When reading, interpreting, and integrating textual content with prior knowledge, students can use comprehension skills (Tadesse 2017). This emphasizes how crucial reading is as a tool for enhancing children' learning abilities. It serves as the foundation for the creation and development of the student's academic talents through a variety of training programs and courses. Due to this pandemic, the educational sector faces significant challenges. Fortunately, educators will continue to support the objective of the Department of Education (DepEd) to make every Filipino child a reader at grade level by utilizing online teaching platforms to impart critical knowledge (DepEd Order No 12, s. 2015).

Furthermore, children who listen to stories being recounted aloud benefit greatly from being able to form mental images of the characters and events being described. Listening understanding relies on both hearing and phonological awareness, but these abilities are distinct.

In relation to these, reading is a difficult process that enables us to turn symbols on a page into meaningful words, phrases, and paragraphs. Similar to speaking, this is not a skill that develops naturally as part of human development; rather, it must be taught.

This research aims to elevating the reading skills of students through adopting audio-based language learning. Specifically, it seeks to answer the following questions:
1. What is the level of features of Audio-based language learning in terms of:
   Relevance;
   Comprehensibility;
   Accuracy;
   Catchiness; and
   Motivation?
2. What is the level of pre-reading and post-reading skills of the students in terms of:
   Reading comprehension; and
   Reading speed?
3. Are there Significant Differences between the Reading Skills in terms of Reading Comprehension with regards to Pre Reading and Post Reading under:
   Control group; and
   Experimental groups?
4. Are there Significant Differences between the Reading Skills in terms of Reading Speed with regards to Pre Reading and Post Reading under:
   Control group; and
   Experimental groups?

REVIEW OF RELATED LITERATURE

Audio-based Language Learning

The first talent acquired by a person is the ability to listen (Orilina & Suryani, 2017). Listening is essential before speaking. Maintaining what people say is what listening entails. Listening is a practice. Listening is one of the abilities required of a facilitator. Listening is more than merely hearing anything that "enters the left ear and exits the right ear" or vice versa. Listening is a serious process of understanding what other people say that cannot be accomplished just by depending on habits, reflexes, and instincts. Listening needs pupils to absorb verbal input, hence it is a receptive skill (Nurpahmi, 2015).

Features of Audio-based Language Learning

According to Lewis (2020), when someone hear or read English that he can understand, it is called comprehensible input. Listening to the news, having conversations, and listening to podcasts are all examples of language inputs. Quality and precision are provided by accuracy, while accountability, stability, and security are provided by truth and openness. (Maniyani, 2022) Mili, A. & Maniruzzaman (2022) cited that to acquire a new language, motivation is the most important factor. They will achieve their goals if they maintain an optimistic outlook and a strong desire to study. Gardner described motivation as "the sum of a person's effort, desire, and positive feelings toward the language being learned."

Elevating reading Skills

Reading comprehension is the process of selecting schemata and variables to explain incoming information. Schema, a data format used to describe broad ideas kept in memory, is critical in editing and retrieval planning. Schema selection is an inference technique that speeds up reading comprehension. Because schema difference is one of the causes of reading comprehension failure, language education and sociocultural background should be enhanced to assist students create schemata that will help them integrate, extract, and consolidate content. It is critical in reading instruction that pupils progress swiftly from lower schemata to higher schemata (Xie, 2017).

METHODOLOGY

Research Design

A quantitative research design will be employed. It will be a quasi-experimental design. Quasi-experimental studies try to assess treatments but do not employ randomization. Quasi-experiments, like randomized trials, seek to show causation between an intervention and a result. Quasi-experimental research designs look for a link between independent and dependent variables. The independent variable is the variable that influences, while the dependent variable is the variable that is influenced (Loewen & Plonsky, 2016).

A pretest-post-test experiment is one in which measurements are obtained both before and after a treatment. The design implies that you can observe the impact of a therapy on a group. Pretest and posttest designs may be quasi-experimental, meaning that participants are not allocated at random.

Relatively speaking, in this study, purposively selected grade 9 students who would be identified to have low scores in the pretest on reading skills would be the respondents of the study,

RESULT AND DISCUSSION

Table 1. Level of Features of Audio-Based Language Learning in terms of Relevance

Statement	Different Respondents					
	X1 READ A LOUD			X2 MYSTERY READER		
	$\bar{X}$	SD	VI	$\bar{X}$	SD	VI
Show the relevance of how I can improve my reading comprehension. (relevance)	5.00	0.00	Very Highly relevant	4.82	0.94	Very Highly relevant
Show the relevance of how I can improve my reading speed. (relevance)	5.00	0.00	Very Highly relevant	4.80	0.94	Very Highly relevant
Are useful and purposeful in enhancing my reading skills. (relevance)	5.00	0.00	Very Highly relevant	4.79	0.95	Very Highly relevant
Overall	**5.00**		Very Highly relevant	**4.80**		Very Highly relevant

Legend:
   4.20 – 5.00   Strongly Agree   Very Highly relevant
   3.40 – 4.19   Agree   Highly relevant
   2.60 – 3.39   Nuetral   Relevant
   1.80 – 2.59   Disagree   Low
   1.00 – 1.79   Strongly Disagree   Very low

Table 1. Reveals the level of Features of Audio-Based Language Learning in terms of Relevance. It shows that relevance as a feature of the audio-based language learning catered weighted means of 5.00 (read aloud), and 4.80 (mystery reader) which are both interpreted as Very Highly Relevant.
It implies that the audio-based language learning has the condition or quality of being closely related or suitable in enhancing the reading skills of students in terms of comprehension and speed. It also means that the two groups see that the audio-based language learning are all applicable in elevating the said skills.

Mohanty (2017) said that the quality of a student's education is directly correlated to the quality of the learning resources available to them. A worksheet, for instance, could be an excellent way for a student to put into practice what they have learned in class.

Table 2. Level of Features of Audio-Based Language Learning in terms of Comprehensibility

Statement	Different Respondents					
	X1 READ ALOUD			X2 MYSTERY READER		
	$\bar{X}$	SD	VI	$\bar{X}$	SD	VI
Make me easily understand what the content of the text is. (comprehensibility)	4.98	0.13	Very Highly Comprehensive	4.81	0.92	Very Highly Comprehensive
Make the message of the text clear (comprehensibility)	4.97	0.18	Very Highly Comprehensive	4.83	0.90	Very Highly Comprehensive
Make me grasp the necessary skills to improve reading. (Comprehensibility)	4.97	0.18	Very Highly Comprehensive	4.81	0.91	Very Highly Comprehensive
Overall	4.97		Very Highly Comprehensive	4.81		Very Highly Comprehensive

Legend:
      4.20 – 5.00   Strongly Agree   Very Highly Comprehensive
      3.40 – 4.19   Agree   Highly Comprehensive
      2.60 – 3.39   Neutral   Comprehensive
      1.80 – 2.59   Disagree   Low
      1.00 – 1.79   Strongly Disagree   Very Low

Table 2. reveals the level of Features of Audio-Based Language Learning in terms of Comprehensibility. It shows that comprehensibility as a feature of the audio-based language learning got weighted means of 4.97 (read aloud), and 4.81 (mystery reader) which are both interpreted as Very Highly Comprehensive.

It implies that the audio-based language learning has the capability of being well-understood which helps in elevating reading skills. According to Lewis (2020), when someone hear or read English that he can understand, it is called comprehensible input. Listening to the news, having conversations, and listening to podcasts are all examples of language inputs. (Like books, articles, English blog articles, etc).

Table 3. Level of Features of Audio-Based Language Learning in terms of Accuracy

Statement	Different Respondents					
	X1 READ A LOUD			X2 MYSTERY READER		
	$\bar{X}$	SD	VI	$\bar{X}$	SD	VI
Help me get the necessary information in the text. (Accuracy)	4.97	0.18	Very Highly Accurate	4.83	0.90	Very Highly Accurate
Help me identify the main ideas and supporting details in the text. (accuracy)	4.93	0.26	Very Highly Accurate	4.76	0.91	Very Highly Accurate
Help me validate that the ideas that	4.98	0.13	Very Highly Accurate	4.75	0.95	Very Highly Accurate

I understand are correct. (accuracy)						
Overall	4.96		Very Highly Accurate	4.78		Very Highly Accurate

Legend:
- *4.20 – 5.00   Strongly Agree   Very Highly Accurate*
- *3.40 – 4.19   Agree   Highly Accurate*
- *2.60 – 3.39   Nuetral   Accurate*
- *1.80 – 2.59   Disagree   Low*
- *1.00 – 1.79   Strongly Disagree   Very Low*

Table 3. shows the Features of Audio-Based Language Learning in terms of Accuracy. It shows that accuracy as a feature of the audio-based language learning catered weighted means of 4.96 (read aloud), and 4.78 (mystery reader) which are both interpreted as Strongly Agree.

It justifies that through the audio-based language learning, the students can be able to identify the correct and precise information that help them in improving their skills in reading. Quality and precision are provided by accuracy, while accountability, stability, and security are provided by truth and openness. (Maniyani, 2022)

Table 4. Level of Features of Audio-Based Language Learning in terms of Catchiness

Statement	Different Respondents					
	X1 READ A LOUD			X2 MYSTERY READER		
	$\bar{X}$	SD	VI	$\bar{X}$	SD	VI
Make me focus on doing the activity. (catchiness)	4.95	0.22	Very Highly Catchy	4.83	0.89	Very Highly Catchy
Make me interested to listening and reading. (catchiness)	4.97	0.18	Very Highly Catchy	4.83	0.90	Very Highly Catchy
Catch my attention to participate in the activity. (catchiness)	4.90	0.31	Very Highly Catchy	4.83	0.88	Very Highly Catchy
Overall	4.94		Very Highly Catchy	4.83		Very Highly Catchy

Legend:
- *4.20 – 5.00   Strongly Agree   Very Highly Catchy*
- *3.40 – 4.19   Agree   Highly Catchy*
- *2.60 – 3.39   Nuetral   Catchy*
- *1.80 – 2.59   Disagree   Low*
- *1.00 – 1.79   Strongly Disagree   Very Low*

Table 4. shows the level of Features of Audio-Based Language Learning in terms of catchiness. It shows that catchiness as a feature of the audio-based language learning catered weighted means of 4.94 (read aloud), and 4.83 (mystery reader) which are both interpreted as Very Highly Catchy.

It supports the idea that the audio-based language learning made the students be focused in doing the activity because it gained their interests. As cited by Ureña (n.d.), one of the considerations in making a learning material is to have an effect on the student in that they pique their interest and keep it. Engage people on multiple levels (mental, visual, and emotional). Facilitate the students' independent

investigation. It is helpful for language learners to focus on the most prominent aspects of the information.

Table 5. Level of Features of Audio-Based Language Learning in terms of Motivation

Statement	Different Respondents					
	X1 READ A LOUD			X2 MYSTERY READER		
	$\bar{X}$	SD	VI	$\bar{X}$	SD	VI
Motivate me to understand and give focus to the activity. (motivation)	4.98	0.13	Very Highly Motivated	4.83	0.91	Very Highly Motivated
Make me eager to read more. (motivation)	4.98	0.13	Very Highly Motivated	4.83	0.91	Very Highly Motivated
Makes me more motivated to improve my reading skills. (motivation)	4.97	0.18	Very Highly Motivated	4.83	0.90	Very Highly Motivated
Overall	4.98		Very Highly Motivated	4.83		Very Highly Motivated

Legend:
4.20 – 5.00	*Strongly Agree*	*Very Highly Motivated*
3.40 – 4.19	*Agree*	*Highly Motivated*
2.60 – 3.39	*Neutral*	*Motivated*
1.80 – 2.59	*Disagree*	*Low*
1.00 – 1.79	*Strongly Disagree*	*Very Low*

Table 5. reveals the level of Features of Audio-Based Language Learning in terms of Motivation. It shows that motivation as a feature of the audio-based language learning catered weighted means of 4.98 (read aloud), and 4.83 (mystery reader) which are both interpreted as Strongly Agree.

It means that the audio-based language learning makes the students more eager to enhance their reading skills, both reading and comprehension. Mili, A. & Maniruzzaman (2022) cited that to acquire a new language, motivation is the most important factor. They will achieve their goals if they maintain an optimistic outlook and a strong desire to study. Gardner described motivation as "the sum of a person's effort, desire, and positive feelings toward the language being learned."

Table 6. Level of Pre-Reading and Post-Reading Skills of the Students in terms of Reading Comprehension

Reading Comprehension	Control Group No Treatment					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI
18 -20	6	**13.04**	Independent	6	**13.04**	Independent
15 -17	22	**47.83**	Instructional	21	**45.65**	Instructional
0 - 14	18	**39.13**	Frustration	19	**41.30**	Frustration
Overall	**46**	**100.00**	**Frustration**	**46**	**100.00**	**Instructional**
	X=13.83 SD=3.85			X=14.65 SD=2.79		
Reading Comprehension	**Experimental X1 Read Aloud**					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI
18 -20	2	**4.35**	Independent	24	**52.17**	Independent
15 -17	8	**17.39**	Instructional	16	**34.78**	Instructional
0 - 14	36	**78.26**	Frustration	6	**13.04**	Frustration
Overall	**46**	**100.00**	**Frustration**	**46**	**100.00**	**Independent**
	X=11.70 SD=3.51			X=17.04 SD=2.22		
Reading Comprehension	**Experimental X2 Mystery Reader**					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI
18 -20	3	**6.52**	Independent	21	**45.65**	Independent
15 -17	15	**32.61**	Instructional	19	**41.30**	Instructional
0 - 14	30	**65.22**	Frustration	8	**17.39**	Frustration
Overall	**48**	**104.35**	**Frustration**	**48**	**104.35**	**Instructional**
	X=13.17 SD=2.81			X=16.61 SD=2.18		

Table 6. reveals the level of pre-reading and post-reading skills of the students in terms of Reading Comprehension. The table indicates that the pre-reading skills of the three groups fell under the frustration category while their post-reading skills fell under instructional for the control group and independent for both experimental groups (reading aloud and mystery reader).

This means that the student's reading skills were lower in the pre-reading rather than post-reading which also implies that they have lower reading comprehension before than after the intervention.

Table 7. Level of Pre-Reading and Post-Reading Skills of the Students in terms of Reading Speed

Reading Speed	Control Group No Treatment					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI
191 and above	0	**0.00**	Fast	5	**10.87**	Fast
171-190	6	**13.04**	Average	9	**19.57**	Average
Below 170	40	**86.96**	Slow	32	**69.57**	Slow
Overall	**46**	**100.00**		**46**	**100.00**	
	X=134.57SD=28.56		**Slow**	X=154.98 SD=27.48		**Slow**
Reading Speed	**Experimental X1 Read A Loud**					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI
191 and above	10	**21.74**	Fast	39	**84.78**	Fast
171-190	10	**21.74**	Average	6	**13.04**	Average
Below 170	26	**56.52**	Slow	1	**2.17**	Slow
Overall	**46**	**100.00**	**Slow**	**46**	**100.00**	**Fast**
	X=168.74 SD=40.01			X=208.59 SD=20.87		
Reading Speed	**Experimental X2 Mystery Reader**					
	Pre-Reading			Post-Reading		
	f	%	VI	f	%	VI

191 and above	7	**14,58**	Fast	30	**62.5**	Fast
171-190	13	**27.08**	Average	18	**37.5**	Average
Below 170	28	**58.33**	Slow	0	**0.00**	Slow
Overall	**48**	**100**	**Slow**	**48**	**100**	**Fast**
	X=157.07 SD=32.18			X=202.22 SD=24.11		

Table 7. Reveals the level of pre-reading and post-reading skills of the students in terms of Reading Speed. The table indicates that the pre-reading skills of the three groups fell under the slow category while their post-reading skills fell under the slow the for the control group and fast for both experimental groups (reading aloud and mystery reader).

This means that the students' reading skills were lower in the pre-reading rather than post-reading which also implies that they read slower before than after the intervention done.

Table 8. Significant differences between Control Group and Experimental Group Reading Skills in terms of Reading Comprehension with regards to the Pre Reading and Post Reading

Group Respondents	Reading Skills		Mean	SD	Mean Difference	Computed t-value	Critical t-value	VI
Control	Reading Comprehension	Pre-Reading	13.83	3.85	0.82	1.92651	2.0141	NS
		Post Reading	14.65	2.79				
Experimental X1 Read A Loud	Reading Comprehension	Pre-Reading	11.70	3.51	5.34	7.7945	2.0141	S
		Post Reading	17.04	2.22				
Experimental X2 Mystery Reader	Reading Comprehension	Pre-Reading	13.13	2.81	3.47	7.2891	2.0141	S
		Post Reading	16.61	2.18				

*NS=Not Significant   S=Significant

Table 8. Shows the significant differences between the students' Reading Skills in terms of Reading Comprehension with regard to the Pre Reading and Post Reading of the control Group and experimental groups. It justifies that there is no significant difference between Students' Reading Skills in terms of Reading Comprehension of the control group with a computed t-value of 1.92651 and a critical t-value of 2.0141 with a while the experimental group 1 (read aloud)'s reading comprehension in the pre-reading and post-reading have significant differences with a computed t-value of 7.7945 and a critical t-value of 2.0141 which means that there is a significant difference. Similarly, experimental group 2 (mystery reader)'s reading comprehension in the pre-reading and post-reading have significant differences with a computed t-value of 7.2891 and a critical t-value of 2.0141 which means that there is a significant difference.

This implies that because there is no intervention done in the control group, no improvement was seen in the skills of students in understanding and interpreting what they have read while for the two experimental groups, the audio-based language learning helped in improving the

students' reading comprehension. This means that both reading aloud and mystery reading are helpful ways for how students could be able to have a better understanding of what they read.

Table 9. Significant differences between the Control Group and Experimental Groups' Reading Skills in terms of Reading Speed with regards to the Pre Reading and Post Reading

Group Respondents	Reading Skills		Mean	Standard Deviation	Mean Difference	Computed t-value	Critical t-value	VI
Control	Reading Speed	Pre-Reading	134.57	28.56	20.41	5.2309	2.0141	S
		Post Reading	154.98	27.48				
Experimental X1 Read A Loud	Reading Speed	Pre-Reading	168.74	40.01	39.85	6.27734	2.0141	S
		Post Reading	208.59	20.87				
Experimental X2 Mystery Reader	Reading Speed	Pre-Reading	157.17	32.18	45.05	17.395	2.0141	S
		Post Reading	202.22	24.11				

*NS=Not Significant   S=Significant

Table 9. Shows the significant difference between the reading skills in terms of reading speed with regard to the Pre Reading and Post Reading of the Control Group and the experimental groups. Having a computed t-value of 5.2309 and a critical t-value of 2.0141for control group means that there is a significant difference while for the experimental groups, there are significant differences between the reading skills in terms of reading speed with regard to the Pre Reading and Post Reading of the Experimental Groups. Experimental group 1 read audibly the text. The computed t-value for this group was 6.27734, while the critical t-value was 2.0141. This indicates that there is a significant difference between the two reading speeds. Similarly, experimental group 2 (mystery reader)'s reading comprehension in the pre-reading and post-reading have significant differences with a computed t-value of 17.395 and a critical t-value of 2.0141 which means that there is a significant difference.

This implies that even if there was no intervention for the control group, the students were able to improve their reading skills in terms of speed. In addition, interventions of audio-based language learning for the experimental groups have a great impact on students' fastness in reading particularly in mystery reading wherein the computed t-value is the farthest from the critical t-value.

CONCLUSION

After analyzing the data gathered, the following were brought into conclusions of the researcher: the level of features of Audio-based language learning in terms of Relevance, Comprehensibility, Accuracy, Catchiness,; and Motivation were all seen since the responses of the students fell under strongly agree; the level of pre-reading and post-reading skills of the students in terms of Reading comprehension, and Reading speed were lower in the pre-assessments rather than post-assessment; there

was no significant relationship between the features of audio-based language learning and the students' reading skills in terms of Reading comprehension, and Reading speed; There were Significant Differences between the Reading Skills in terms of Reading Comprehension with regards to Pre Reading and Post Reading under experimental groups, and control group; and, There were Significant Differences between the Reading Skills in terms of Reading Speed with regards to Pre Reading and Post Reading under experimental groups, and control group.

Having the results, the intervention to enhance the reading skills of students in terms of reading comprehension and speed was improved by the audio-based language learning strategy.

RECOMMENDATIONS

1. Audio-based language learning strategies might be adopted in the language classroom;
2. Other strategies to enhance reading skills might be also adopted;
3. Further research about reading skills enhancement are being encouraged.

ACKNOWLEDGEMENTS

REFERENCES

Lewis, R. (2020, November 4). What Is Comprehensible Input and Why Does It Matter for Language Learning.

Loewen, S., & Plonsky, L. (2016). An A-Z of applied linguistics research methods. London: Palgrave.

Maniyani, R. (2022, January 4). The Importance of Accuracy, Truth & Transparency in Intent Data.

Manaog, N. R. (2020, January 22). Why students have poor reading comprehension. The Manila Times. Retrieved September 18, 2022

Mili, A. & Maniruzzaman, M. (2022). The Role of Learners' Motivation in English Language Learning at the Tertiary Level in Bangladesh.

Mohanty, R. K. (2017). Why teaching and learning materials are important for our Govt. Primary School

Nurpahmi, S. (2015). Sitti Nurpahmi, Improving Listening Skill By Activating Students' Prior Knowledge.

Orilina, N., & Suryani, L. (2017). Developing Listening for General Communication Coursebook for the First Semester Students Of STKIP Siliwangi Bandung. Journal of Education and Learning.

Ureña, M. (n.d.). Principles of effective materials development.

Xie, X. (2017). The influence of schema theory on foreign language reading comprehension. The English Teacher.