

Interactive digital storytelling to improve comprehension for elementary ESL students.

Researchers:

Farzaneh NamaziFard and Behnaz Ebadat

Abstract:

This convergent mixed research project investigates strategies for improving students' comprehension of new article two ESL third and fifth grade students using interactive digital story as one tool in teaching.

The participants in this research are two students of a different gender.

The result of the study suggests that an interactive digital story with a focus on pronunciation, the meaning of the new words, summary of the lesson, quiz in different section of the digital story; is helpful for ESL students to understand the content of the text better .and in a long time gives a sense of how to read a new article to understand that better. The researchers suggest the educational system provide short interactive video for each book to speed up the process of reading and comprehension.

Introduction:

Comprehension majors are an important category in elementary level learners. New articles contain several new words that require special attention. Learners need the understanding of new words, and they must be able to pronounce them correctly. Understanding each paragraph, making connections between each paragraph, and understanding the structure of the article must be achieved. Summarizing the article should become the next step to encourage learners to retain the words in their mind. One of the ways of understanding a new article is taking notes and making connections between each note. Furthermore, the interactive digital story tries to follow the steps in reading a new article. In the long term, it is expected that those who are not familiar with the method of writing notes by interactive storytelling learn how to take notes for better understanding.

Review of Literature:

How to learn a new language is one of the most important issues among teachers who have students whose first language is not English. How to teach a second language learner is an important issue for teachers, and this has been considered by linguists. In the United States, elementary school students are tested to determine their reading ability. "In the United States, elementary schools commonly use a measure of reading fluency, called oral reading fluency (ORF), to screen students for reading difficulties and examine their reading progress over time" (Arnesen et al., 2017, p. 177). Success in education is directly related to the ability to read and understand, which is why this test is done in American schools.

Fluency

Comprehending a text is one of the most important steps in language learning. The goal of language learning is for the reader to be able to grasp the meaning of new words from within the text and ultimately use it in everyday communication. "This would suggest that the degree of reading ability further predicts the learner's ability to successfully infer the meaning of vocabulary from context" (Garza, 2017, p. 396). Understanding new words in a foreign language is one of the most basic steps. The goal of language learning is to understand the language and use it successfully in everyday work.

The highlight purpose of reading is comprehension, which is affected by the analysis of the word and its meaning in the text. “Reading fluency is commonly defined as reading with accuracy, speed, and expression or prosody” (Arnesen et al., 2017, p. 178). To measure fluency, the points that are considered include reading accuracy, reading speed, and reading meaningfully.

Decoding means analyzing the word in the mind to understand its meaning. Those who emphasize decoding for fluency reading believe that when the student knows the meaning of the words in the text, their fluency level automatically rises.

The long-term effect of learning the meaning of words leads to the fact that when reading another article, we do not seek to know the meaning of the words separately and the words are imprinted in the mind. There is a relationship between reading and comprehension that fluency helps to liberate cognitive resources, so students are directly seeking to construct the meaning of the text.

According to the research below the ability to read easily indicates a better understanding of the material. “Students who are not fluent readers will spend more time on decoding than they do on understanding the meaning of the text” (Brady & Kritsonis, n.d., p. 2). Research has shown that when learners focus on reading words and decoding them, their energy is spent on the specific meaning of a word, and not on the content.

In one experiment, it described the stages of language learning up to the stage of fluency. First, new words are found in the book and their meanings are stated. Then the learner thinks about the meaning of each paragraph. Then the book is read, and its summary is said and written.

The ability to recognize the word automatically gives the reader the ability to focus on comprehension. It helps to identify words correctly, and it allows the reader to process words automatically and effortlessly and free up short-term memory for overall comprehension. “Skillful readers recognize words quickly and automatically because they have such a deep knowledge of spelling–sound associations” (Zipke, 2016, p. 72). Strong readers easily identify a word by its spelling. This ability helps to free the mind and allows the learner to focus on comprehension greatly.

Learning theory

Psychologists say that observing a subject helps to understand it more easily. Learners understand in sensory or non-sensory ways for virtual objects. “A psychological state in which virtual objects are experienced as actual objects in either sensory or non-sensory ways” (Clark et al., 2015, p. 50). Psychologists' point of view on a better and easier understanding of a text is about observing a subject that helps to understand it more easily. In this theory, learning is based on external encounters therefore consider the need of video and other educational equipment necessary.

Theoretical foundation

1. Constructivist learning theory.

According to the theory of Constructivist, when the learners become active, they learn more than when they are only a listener, which is why they encourage learners to participate in the learning process and they are against the environment that the focus is on the teacher and textbook only. “Constructivists view learning as a formation of abstract concepts in the mind to represent reality” (Zhang et al., 2006, p. 16). Learners are more engaging when the instructors include interesting and colorful digital components.

2. Cognitive information processing theory

The theory of cognitive information processing is to receive and store information by memory and comprehension through spontaneous learning. A learner's attention is limited, so the learner will focus on the most interesting item naturally. For strength in learning, practice and repetition of the content should be done in the form of tests, questions and answers that could be included in digital components. Videos give students the chance to have a better understanding and realistic sense of the content. Furthermore, it is preferable to divide the training into small parts for better and easier understanding.

The more they know about a subject, the easier it will be for them to understand a new text about it. The reader of a text tries to guess new words and test the correctness of that guess by continuing to read the article. Cognitively, the act of

reading involves summarizing a story into a comprehensible state. “As a cognitive process, reading involves mental activities such as summarizing and clarifying meaning” (Robertson, n.d., p. 8). Understanding the whole story, creating a question, and summarizing are some useful steps that make a text easier to understand.

The learning English theory for ESL students

Linguists have divided the ESL learning process into five stages. These steps start from the earliest stage of language learning, and after passing all five stages, finally in the fifth stage the learner changes from the second language mode to the stage of someone whose English is their native language. “Stephen Krashen’s theory of second language acquisition consists of five main hypotheses” (Hong, n.d., p. 62). Stephen Krashen has five theories regarding the teaching of second language students. The second theory, known as the supervision hypothesis, talks about the relationship between acquisition and learning, and this improves the learner's grammar. In the meantime, Dr. Krashen emphasizes learning from the environment of the correct grammar. (The learners for this research are already at this stage of learning.)

Qualitative View

Furthermore, some other factors can be mentioned on the qualitative side including language anxiety, fear of negative evaluation, and perception of low ability. “This article aims to contribute to the literature on language anxiety and to provide teachers with strategies for reducing foreign language speaking anxiety stemming from students’ fear of negative evaluation from their peers and perception of low ability” (Tsiplakides & Keramida, 2009, p. 41). Most teachers often do not identify anxious students, and they often attribute their reluctance to participate in speech tasks to factors such as lack of motivation or low performance. Lack of desire to learn can be due to fear of disability and failure. Self-confidence plays an important role in their willingness to learn. Another important factor is their parents. The parent’s interest, intuition, and effect on the learners. “The factors that influenced their motivation varied from parents, mostly, to their future dream to be

an English teacher, and their love of the English language” (*Listyani_tananuraksakul.Pdf*, n.d.). The findings showed that students in both countries are influenced by parental factors.

There are several factors involved in learning a new language among learners. One of the most important factors is the role of the teacher and the teaching of various points in the language, including helping with correct grammar and pronunciation.

Various research shows that there is a direct relationship between pronunciation, grammar, and understanding words with learner's gender, place of residence, and some other factors. “The reasons identified were environment, attitude and teacher’s competence. Environment and family background play vital roles in the success of the learning process” (Assistant Professor, Tirunelveli. et al., 2011, p. 40). There are several factors involved in learning a new language among learners. One of the most important factors is the role of the teacher and the teaching of various points in the language, including helping with correct grammar and pronunciation.

Findings show that there is a direct relationship between pronunciation and grammar and comprehension of sentence format with the habit of listening to the news. Learning a language with music and repeating unfamiliar words helps students learn new words well with the right rhythm. “Many educational experts suggest that adults and children study their language of choice through listening to songs and rhythmic speaking to build confidence in their abilities” (Koenig, n.d.). In general, there are thoughts on the relationship between learners' ability in listening to the news, doing homework properly, comprehension, pronunciation, grammar, sentence pattern and various variables with gender, location, and other important items.

Interactive Digital Video

So far, film's impact on education has been underestimated, and writing has been highly valued. One of the positive aspects of using it is that the learner pays more attention to the lessons. Interactive videos have made a positive impression on the education process. “Therefore, we hypothesize that an e-learning setting providing interactive video will help learners achieve better learning outcomes” (Zhang et al.,

2006, p. 19). Interactive videos are helpful to provide better performance and more results in learning.

According to educational psychology, the information obtained through watching is more permanent in the human mind, but the information transmitted through video is less than text. When e-learning comes to a broadcast mode, it is mostly not possible for the learners to control the movement.

There are two ways to read an article. First, they are read separately, and these kinds of articles are known as micro-level. Second, an overview is given, and these kinds are known as macro-level. When we have a text, both macro and micro-options are available to the reader. However, in digital video mode, it is not possible to take a general look at what is known as a macro.

Digital productions did not have the possibility of macros at first, but by adding more powerful features to digital videos, this possibility has been made available to the users. In new video productions, the user can browse the content by accessing the back and front buttons. The quizzes and sections for writing allow the users to evaluate also. However, articles in text mode still have a higher macro level. In addition, the impact of learning is visually higher than reading. By seeing a subject visually in comparison to reading an article, a person can keep its content in mind for a longer period.

Wetzel, C.D., Radtke, P.H. and Stern, H.W. (1994) have examined that instructional videos that are interactive and have questions, answers, and feedback are more effective at learning than non-interactive videos. This possibility can mask the weakness of the instructional video on the inability of the active macro-level.

With questions and answers, and feedback, the educational subject stays more permanent in the mind. The control over the video can be given to the learners so they can take a general look at the video before taking a micro-live view. This possibility is also known as an interactive video. Enhanced videos give learners the ability to have an overview of the video content. "The enhanced video offered its users a range of interactive features that supported both micro-level as well as macro-level activities" (Merkt et al., 2011, p. 692). Creating videos where the

control of everything is with the learner allows them to even write and evaluate their own articles on the computer.

Important points that should be considered in preparing digital storytelling are a good voice, a great sound, interesting questions, and some other tips. “The seven common elements of DST include a point of view, a dramatic question, emotional content, voice, sound, economy (using just enough content to tell the story), and pacing” (Pappamihel & Knight, 2016, p. 277). Digital storytelling (DST) could be more valuable by having seven factors, which are a clear point of view, a dramatic and interesting question, emotional content to be more attractive, a good voice, a great sound, enough content, and pacing correctly.

In conclusion, an efficient job of teaching the concept of reading fluency is like a waterfall pouring into its basin. They both contain refreshing, vibrant, and potential energy that is resourceful to all mankind.

Method:

The purpose of this mix -method study was to examine the role of interactive digital storytelling (IDS) on English as a second language student. This study was designed to gain an understanding of IDS impact on the fluency and comprehension ability of ESL students. The number of samples is very low. two ESL students from 5th grade and four ESL students from third grade are as a reference group. The study addresses the following questions:

Research question 1: How different structural text effects on comprehension of the new text that ESL students in elementary level?

Research Question 2: How much interactive digital storytelling is helpful for ESL students to understand the new text better?

To address these questions, a convergent mix – method of quantitative and qualitative data collection is used to reach a better result.

Interview Questions

Could Interactive digital storytelling make a significant difference in comprehension of new articles among the ESL students?

What are the considerable factors in creating an educational Digital storytelling for ESL students?

In what percentage an interactive digital storytelling could be helpful when the ESL student starts to read a new text?

interview results:

Sampling for the interview question

The participants in the interview are responsible for working with ESL students to improve their ability in reading. The interview participants are the coworkers of the researcher then were easy for the researchers to interview.

The format of interview:

Your name and occupation _____

1. What is your opinion about using digital storytelling for ESL elementary level students?
2. What are the required components (pronunciation, words, quizzes ...) that need to be added?
3. What is the percentage of the improvement in their fluency, accuracy, and comprehension for the new text after watching digital storytelling? (1-5)

Interviewer A

1. Using media to story-tell alongside a book is a helpful tool to bridge the gap in the language barrier. The multilevel forms of communication are essential for the student to comprehend.
2. Accurate storytelling, visual cues that are attached to key words, an interactive opportunity to grow the understanding of English story telling.
3. 3

Interviewer B

1. It helps students to visualize the dimension and color of the characters and engage them with the audio, images, and elements of the stories.
2. Colorful images, pictures, and audio are essential to prepare the students to learn deeper concepts.
3. 4

Collected data of an open-end interview:

The collected data from the interview helped the researchers for the specific design in the product.

- relevant,
- consistence,
- simplify,
- Meaning of the new word,
- short video, or slide related to the new book,
- evaluation (quizzes)
- section quizzes after each section

Sampling method for study on IDS

Participants were recruited from an elementary school in Irvine school district. The selected school was chosen due to one of the researchers being an instructional assistant in that school. The type of selection sample for this study is nonrandom, convenience. The available Students in Knowledge Nest class, two 5th and four in 3rd grade level, are used to examine the effectiveness of interactive digital storytelling among ESL students.

We use quantitative and qualitative data gathering at the same time to measure the effectiveness of IDS on ESL students. In this study the engagement and the level of ability to answer the question are measured at the same time. (concurrent Mixed method sampling)

Pre-test

What is students' level at the beginning?

- o The result from the student's teacher (quantitative)
- What are the improvements in comprehension for new words before applying digital storytelling?
 - o The result of pre-test (quantitative)
 - o The result of engagement (quantitative)
 - questions and diagram

The following method tries to use different perspectives to provide a deeper understanding.

Level of student in three study		
Grade	Number of Students	Standard level
5 th	2	Q
3 rd High level	2	M
3 rd	2	L

Low level		
-----------	--	--

Quantitative Data Collection:

Based on school standard

INSTRUCTIONAL LEVEL EXPECTATIONS FOR READING				
	Beginning of Year (Aug.–Sept.)	1st Interval of Year (Nov.–Dec.)	2nd Interval of Year (Feb.–Mar.)	End of Year (May–June)
Grade K		C+	D+	E+
		B	C	D / E
		A	B	C
				Below C
Grade 1	E+	G+	I+	K+
	D / E	F	H	J / K
	C	E	G	I
	Below C	Below E	Below G	Below I
Grade 2	K+	L+	M+	N+
	J / K	K	L	M / N
	I	J	K	L
	Below I	Below J	Below K	Below L
Grade 3	N+	O+	P+	Q+
	M / N	N	O	P / Q
	L	M	N	O
	Below L	Below M	Below N	Below O ✓ low and high level 3th grade
Grade 4	Q+	R+	S+	T+
	P / Q	Q	R	S / T
	O	P	Q	R
	Below O	Below P	Below Q	Below R
Grade 5	T+	U+	V+	W+
	S / T	T	U	V / W
	R	S	T	U
	Below R	Below S	Below T	Below U ✓ fifth grade

KEY	
Exceeds Expectations	
Meets Expectations	
Approaches Expectations: Needs Short-Term Intervention	
Does Not Meet Expectations: Needs Intensive Intervention	

As it can see all three groups are in orange level. That means “Does not meet Expectation: Need Intensive Intervention.”

The students’ studies in quantitative situations that they located in tables.

Based on the result calculated by PSPP software, the following table resulted:

Valid cases = 34; cases with missing value(s) = 0.

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Minimum</i>	<i>Maximum</i>
comprehension	34	6.82	1.40	4.00	9.00
accuracy	34	99.47	.71	98.00	100.00
fluency	34	2.47	.61	1.00	3.00

This is a general result to the level of Accuracy, Fluency and comprehension that obtained from 34 reading samples.

Qualitative Data Collection:

Name of the book	Comprehension	Fact	Qualitative	Example of hard part and comments
Thunderstorm	5,4	Realistic fiction, straightforward sequential	The feeling of words and describing the situation instead of telling the story made the understanding hard. It had back and forth in the story. For example, when something happened it explained	<ul style="list-style-type: none"> ● Emma Shivered ● She gazed up the hill. ● Lamplight glowed from the windows. ● Brilliant flash of light ● An enormous boom ● It was hard for them to explain how Emma's dad influenced her. ● It was hard for them to explain sequential of what happened

			what his father told her.	
Allie and the everything sandwich	7,8	Realistic faction, Humorous	The pictures in the book were very helpful to understand the story. Students like to listen to the story; it was fun to them	Humorous
Alfa and Beto - Biblioburros	6,8	Nonfiction, biography Cause and effect Problem, solution	First student watches the YouTube video, they enjoyed that and had some question about why the men transfer the book by donkey	A YouTube link about Biblubbers, interesting subject
The house at the edge of the woods	5,7	Realistic faction Chronological sequence	Sequencing the story helped the student to follow the	<ul style="list-style-type: none"> ● Ava shrugged. ● He flicked on a flashlight and set off.

		Mystery story	story, but the feeling and descriptive words and sentences were hard for them.	<ul style="list-style-type: none"> ● Miles pushed on the door and it Swung open. ● Bat fluttered. ● But the stairs were tucked in darkness
Saturday plan	6,7	Realistic faction Chronological sequence	<p>While the story had a description part that cut the semantics of the following story, the funny and humorous parts get the attention of the students.</p> <p>In the story there was the name of some staff that student was not familiar with that it causes they</p>	<p>The picture in the book was very helpful to understand the situation.</p> <ul style="list-style-type: none"> ● He works in a tangle of string. ● Fancy rig ● The picture of Blowpipe by the teacher helped them to get some idea about what happened in the story

			cannot follow the story complete	
Remya Jose's Great Idea	8,8	Nonfiction, biography Chronological order	The Camtasia product by the researchers gave some ideas to students and the funny part of the product caused them to pay more attention to the video. The students were very interested in answering the quizzes and they answered all multiple answers correctly. To fill in the blank part they had	Remya https://app.knowmia.com/5Mk8

			<p>many different ideas that to the researchers was correct but the setup for the answer did not confirm their answers. although they did not find the correct answer, but it caused, they the level of their engagement increased to find the correct answer.</p>	
What is new at the Zoo?	5,7 (99,2,3)	Expository, nonfiction, descriptive	To answer the question about important information the writer	The book has a different heading, it needs to organize the information somehow so that the student can tell his understanding.

			<p>tells in this book?</p> <p>It was hard for the student to organize their information and answer somehow be acceptable based on the rubric</p>	<p>Managing the information in a descriptive and expository nonfiction book is hard.</p>
<p>You cannot stop Trudy</p>	<p>7,8</p>	<p>Nonfiction, biography, descriptive Chronological sequence, problem, solution, cause, and effect</p>	<p>Although the descriptive article is hard for the student, when the content explains in Chronological sequence, problem, solution, cause, and effect. It gave them some idea about</p>	<p>The students were interesting to follow the story and showed interesting engagement</p>

			the story and understanding that easier.	
From poop to paper	7,8(100,99,2,2)	Nonfiction, expository, descriptive Temporal sequence, problem, solution, cause, and effect	<p>The content of the book was new information that was interesting for the student. They show great engagement .</p> <p>The hard spelling words in this book made its reading hard. When students face the reading and understanding the meaning of the sentence it leaves</p>	<p>The YouTube link cleared the students about the content of the book before reading that.</p> <ul style="list-style-type: none"> ● Hard to Answer: Why elephant dung can be used to make paper.

			less energy for them to concentrate on the meaning of the paragraph. And understanding that.	
Blizzard!	7,4(98.99,2,3)	Faction, Chronological sequence, problem, solution	Too many feelings and descriptive sentences were in the book. it made the understanding hard	
Beauty's new beak	6,7	Nonfiction, Chronological sequence, problem, solution	The content was interesting to the students. Too much information. managing the information was hard.	To answer to the question: Tell the important things that happened in this book.
The long way home	8,7 (100,2)	Nonfiction, Biography,	Hard work in the story,	Could not connect between the first part of

		chronologic al sequence, cause, and effect	speck about feeling, The story was interesting to student	the story and the middle part. how these two parts are related to each other.
Pelican Girl	100, 3, 9	Faction, fantasy, chronologic al sequence - problem, solution	This fantasy story was interesting to students. the Camtasia video helped them with different cooking words that was not familiar to student	Pelican Girl in Camtasia: https://app.knowmia.co m/UIRK
The peculiar platypus	6,5(99,1,3)	Nonfiction, expository, descriptive Categorical	Too many hard work Cannot make connection with the book	Cannot organize the information. Hard to read some words
Octopus, escape artist of sea	6,5 (99,98,1.2)	Nonfiction, expository, descriptive	Too many hard work Cannot make	Cannot organize the information. Hard to read some words.

		Problem, solution – Temporal sequence	connection with the book	The students needed to learn how write note of the book
Basketball changing game	9,7(100.99,3 ,2)	Nonfiction, expository, descriptive Problem, solution – Compare / contrast, cause, and effect	The subject was interesting for students. They were familiar with the content. They are very engaging.	Too many pictures to clear the new words. Voice Bubble, graphic book
The great debate	8,8 (100,2)	Faction, humorous, chronologic al sequence	Although there were many hard words for students, but the humorous type of the book with the picture helped the student show good comprehens ion result	Humorous

Water birds, from the sky to the sea	100, 3, 8	Nonfiction, expository, descriptive Categorical	The Camtasia link helped the student to manage the information when they read the book and show good result in comprehension	Water birds: https://app.knowmia.com/yVKF
--------------------------------------	-----------	---	--	---

Discussion:

When the number of descriptions of the situation increases, that makes it hard for the reader to follow the story. Understanding the Mystery story was hard for them. In the story there was the name of some staff that the student was not familiar with that caused them to not follow the story completely. Some verbs also are hard for them to understand. all these could be explained in a digital story. To confirm the understanding of the story in the video the quiz is a helpful tool.

The interactive digital storytelling has interactive parts the same as quizzes in the form of multiple answers, true and false, and fills in the blank. The fill in the blank part of the Interactive digital storytelling, causes the student to show higher engagement to find the correct answer. Based on the observation students had many different ideas that the researchers were correct but the setup for the answer did not confirm their answers. Although they did not find the correct answer, but that caused, they increased the level of their engagement to find the correct answer.

Some books are the same as what 's new in the zoo. Are descriptive and expository nonfiction books. Managing the information in this type of book is hard for students. The Descriptive articles are hard for students but between them, it seems Nonfiction, biography although is descriptive same as the one that speaks about Trudy, Remya and biblioburros but is easier that descriptive and expository nonfiction.

When in the description article the other component is the same as Chronological sequence, problem, solution, cause, and effect involved, in the story, it makes the text easier for the students.

In some books, from poop to paper while the subject is in testing to the student but having problems with spelling the word and its meaning will cause the student to not understand the meaning of the sentence. In this situation it causes less energy for students to concentrate on the meaning of the paragraph.

The fantasy story is an interesting humorous story that is interesting to students. And encourage them to pay more attention to the story. Interactive digital storytelling helps students to understand some verbs that they are not familiar with. A graphic book with a voice bubble is attractive for students. When the students are familiar with the content and watch the information in the form of a graphic book, it shows better results in comprehension.

(what kind of structure made the story easy, or hard for the student)

Research on Interactive Digital storytelling

For all three groups, fifth grade, high level third grade, and low level third grade the interactive digital storytelling examined.

Below are the links to the products:

Fifth grade

WaterBird: <https://app.knowmia.com/OM38>

Third grade high level and low level

Pelican <https://app.knowmia.com/sio4>

Remya <https://app.knowmia.com/5Mk8>

The concentration on all the videos was on vocabulary, organizing the information and evaluating the students' understanding by interactive quizzes.

Post-test

- What is the students' level after applying digital storytelling?
 - The result from the student's teacher (quantitative)
- What are the improvements in comprehension for new words before applying digital storytelling?
 - The result of pre-test (quantitative)
 - The result of engagement (quantitative)
 - questions and diagram

The written result after adding IDT to the lesson plan.

<https://drive.google.com/drive/folders/1XTXunWw0gkVMOQHdRI9oHcYExygrNm?usp=sharing>

The result of the standard record after adding IDT to the lesson plan.

student	book	Accuracy	fluency	comprehension
A	water birds	99	2	8
B	water birds	99	2	8
C	pelican Girl	100	3	9

D	Pelican Girl	100	3	9
E	Remya Jose	99	3	9
F	Remya Jose	99	3	9

The students in all three groups showed great engagement, either in answering the quizzes or after watching the video. They liked to speak about the content of the videos.

Conclusion:

Totally the result shows the hard words in the text have direct relation with their comprehension. interactive digital storytelling helps students to manage the information in the book. Based on the previous it is expected the student shows a low level of comprehension, but the interactive digital storytelling helps the student in understanding the text. The design of the product tried to focus on hard words and show the information in categorical ways.

Providing short interactive videos for the books to speed up the process of reading and comprehensiveness is the main idea in this research. Better absorbing the correlations between paragraphs and the ability to summarize will be the highlight. Including a written text and a space for summary improve the IDS for a better outcome. The IDS develops the comprehension, fluency, and accuracy of the ESL student's performance.

References

- Arnesen, A., Braeken, J., Baker, S., Meek-Hansen, W., Ogden, T., & Melby-Lervåg, M. (2017). Growth in Oral Reading Fluency in a Semitransparent Orthography: Concurrent and Predictive Relations with Reading Proficiency in Norwegian, Grades 2-5. *Reading Research Quarterly*, 52(2), 177–201. <https://doi.org/10.1002/rrq.159>
- Assistant Professor, Department of Education, Manonmaniam Sundaranar University, Tirunelveli., Dharma Raja, B. W., Selvi, K., & Pre-Doctorate Scholar in English, Department of Education, Manonmaniam Sundaranar University, Tirunelveli. (2011). Causes of Problems in Learning English as A Second Language as Perceived by Higher Secondary Students. *I-Manager's Journal on English Language Teaching*, 1(4), 40–45. <https://doi.org/10.26634/jelt.1.4.1604>
- Brady, E. C., & Kritsonis, W. A. (n.d.). *Targeting Reading Fluency for ESL Students*. 6.
- Clark, C., Strudler, N., & Grove, K. (2015). *Comparing Asynchronous and Synchronous Video vs. Text Based Discussions in an Online Teacher Education Course*. 19(3), 22.
- Garza, B. (2017). Acquiring Foreign Language Vocabulary Through Meaningful Linguistic Context: Where is the Limit to Vocabulary Learning? *J Psycholinguist Res*, 20. <https://doi-org.libproxy.lib.csusb.edu/10.1007/s10936-016-9444-0>
- Hong, Y. (n.d.). *On teaching strategies in second language acquisition*. 7.
- Jernigan, J. (2012). Output and English as a Second Language Pragmatic Development: The Effectiveness of Output-focused Video-based Instruction. *English Language Teaching*, 5(4), p2. <http://dx.doi.org/10.5539/elt.v5n4p2>
- Koenig, S. (n.d.). *The Positive & Negative Effects of Learning a Foreign Language*. The Classroom | Empowering Students in Their College Journey. Retrieved April 24, 2021, from <https://www.theclassroom.com/positive-effects-learning-foreign-language-8207715.html>.
- Listyani, & Tananuraksakul, N. (2019). Motivation, self-confidence, and anxiety in English language learning: Indonesian and Thai students' perspectives. *Accents Asia*, 11(2), 54-77.

- Merkt, M., Weigand, S., Heier, A., & Schwan, S. (2011). Learning with videos vs. learning with print: The role of interactive features. *Learning and Instruction*, S0959475211000247.
<https://doi.org/10.1016/j.learninstruc.2011.03.004>
- Pappamihel, N. E., & Knight, J. H. (2016). Using Digital Storytelling as a Language Experience Approach Activity: Integrating English Language Learners into a Museum Field Trip. *Childhood Education*, 92(4), 276–280.
<https://doi.org/10.1080/00094056.2016.1208005>
- Robertson, P. (n.d.). *The Asian EFL Journal April 2019 Volume 22, Issue. 24.*
- Tsiplakides, I., & Keramida, A. (2009). Helping students overcome foreign language speaking anxiety in the English classroom: Theoretical issues and practical recommendations. *International Education Studies*, 2(4), p39.
<https://doi.org/10.5539/ies.v2n4p39>
- Zhang, D., Zhou, L., Briggs, R. O., & Nunamaker, J. F. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information & Management*, 43(1), 15–27.
<https://doi.org/10.1016/j.im.2005.01.004>
- Zipke, M. (2016). The importance of flexibility of pronunciation in learning to decode: A training study in set for variability. *First Language*, 36(1), 71–86.
<https://doi.org/10.1177/0142723716639495>

Appendix :

ESL-pspp.sav [DataSet1] — PSPPIRE Data Editor

File Edit View Data Transform Analyze Graphs Utilities Windows Help

Case	Var0001	Var0002	Var0003	Var0004	Var0005	Var0006	Var0007	Var0008	Var0009	Var0010	Var0011	Var0012
1	1	Gold	65	Q	the Peculiar Platypuse	99	1	6	02/18/2021	5	.	too many hard hard words
2	1	Gold	69	Q	Octopus Escape Artist of	99	1	6	03/03/2021	5	.	hard words related to animal bod
3	1	Gold	71	Q	Basketball changing the game	99	2	7	03/16/2021	5	video link - intrsted in subject	good writing , low in Coprehentic
4	1	Gold	73	Q	The Great Debate	100	2	8	04/08/2021	5	the new word list in word	good FNTF - hard word
5	1	Gold	75	Q	water Birds	98	2	9	04/29/2021	5	interactive , digital story tellin	categorical, description
6	2	Gold	65	Q	the Peculiar Platypuse	99	3	5	02/18/2021	5		
7	2	Gold	69	Q	Octopus Escape Artist of	98	2	5	03/03/2021	5	.	.
8	2	Gold	71	Q	Basketball changing the game	100	3	9	03/16/2021	5	video link - intrested to subject	.
9	2	Gold	73	Q	The Great Debate	100	2	8	04/08/2021	5	.	.
10	2	Gold	75	Q	water Birds	98	3	9	04/29/2021	5	interactive , digital story tellin	good wriing - Good FTNF, hard
11	3	Red	5	L	Alfa and Beto : the Bibli	99	3	6	03/22/2021	3	youtub link - real	
12	3	Red	1	L	Thunderstorm	100	3	5	03/10/2021	3		hard words
13	3	Red	3	L	Alie and the Everything S	100	3	5	03/17/2021	3	.	.
14	3	Red	7	L	The House at the edge of	100	3	5	04/02/2021	3	.	.
15	3	Red	9	L	Saturdav Plans	100	3	7	04/09/2021	3	.	.

Data View Variable View

Filter off Weights off No Split

Figure 1 : pspp table

fluency * comprehension [count, row %, column %, total %].

<i>fluency</i>	<i>comprehension</i>						Total
	4	5	6	7	8	9	
1	.00	.00	2.00	.00	.00	.00	2.00
	.00%	.00%	100.00%	.00%	.00%	.00%	100.00%
	.00%	.00%	40.00%	.00%	.00%	.00%	5.88%
	.00%	.00%	5.88%	.00%	.00%	.00%	5.88%
2	.00	2.00	1.00	6.00	4.00	1.00	14.00
	.00%	14.29%	7.14%	42.86%	28.57%	7.14%	100.00%
	.00%	28.57%	20.00%	66.67%	50.00%	25.00%	41.18%
	.00%	5.88%	2.94%	17.65%	11.76%	2.94%	41.18%
3	1.00	5.00	2.00	3.00	4.00	3.00	18.00
	5.56%	27.78%	11.11%	16.67%	22.22%	16.67%	100.00%
	100.00%	71.43%	40.00%	33.33%	50.00%	75.00%	52.94%
	2.94%	14.71%	5.88%	8.82%	11.76%	8.82%	52.94%
Total	1.00	7.00	5.00	9.00	8.00	4.00	34.00
	2.94%	20.59%	14.71%	26.47%	23.53%	11.76%	100.00%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	2.94%	20.59%	14.71%	26.47%	23.53%	11.76%	100.00%

Figure 2 : comprehension and fluency description

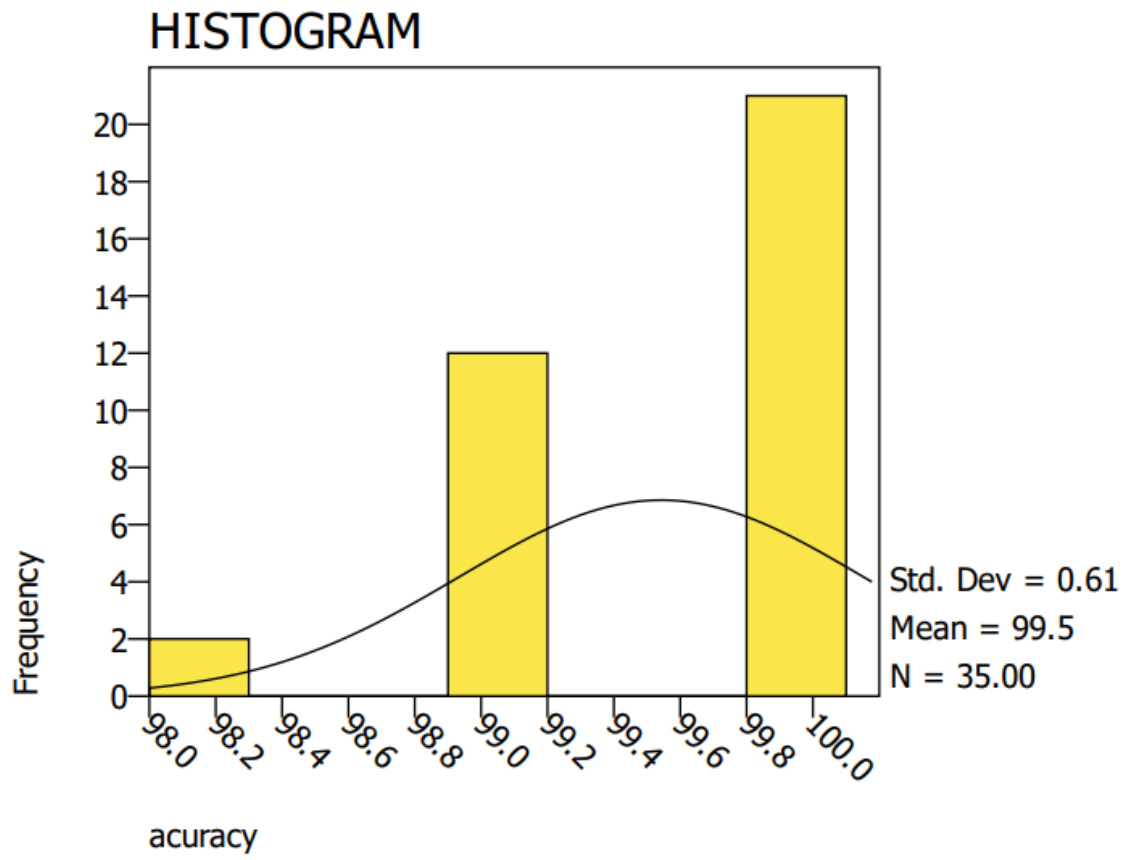


Figure 3 : frequency of accuracy

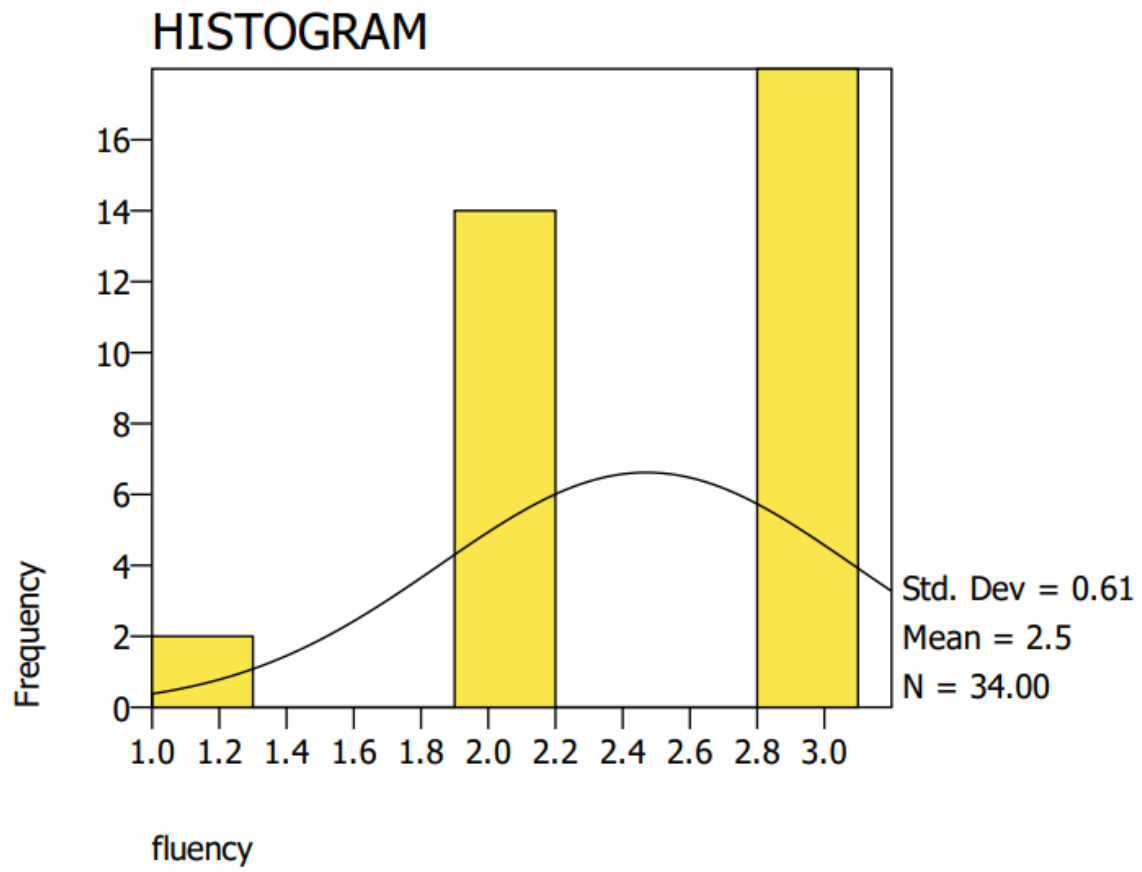


Figure 4 : frequency of fluency

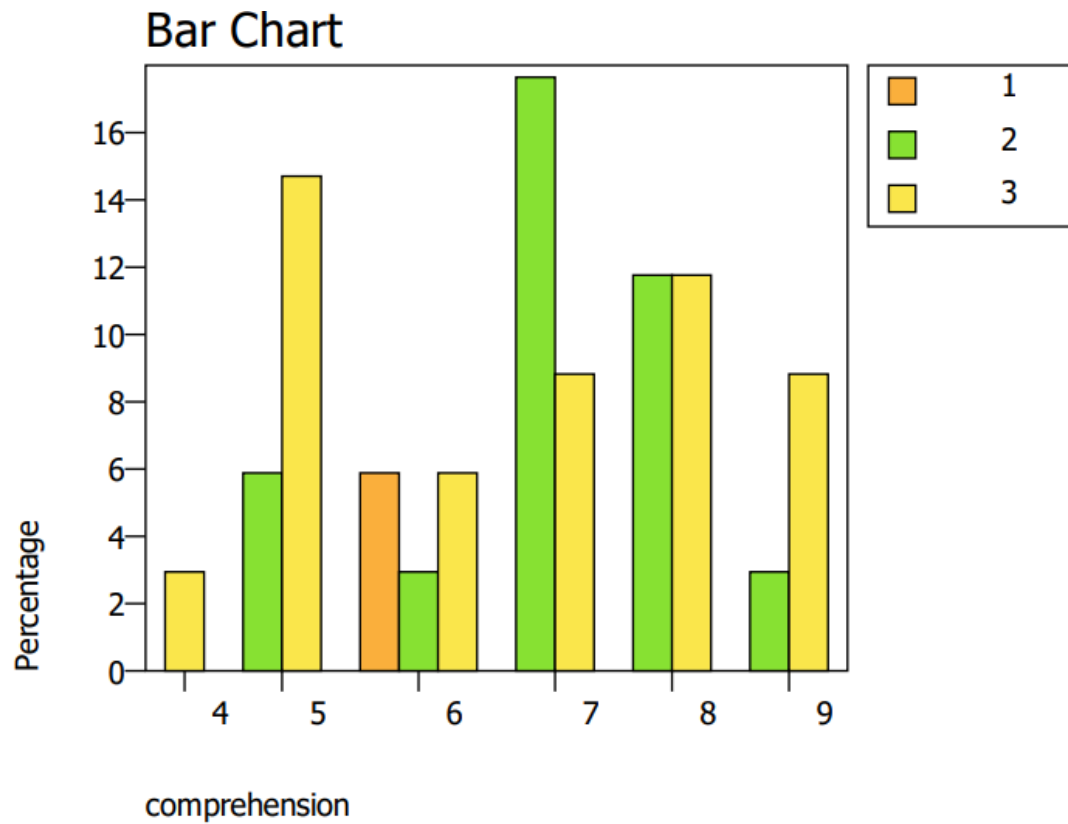


Figure 5: Percentage of fluency, comprehension


Water Birds ---> descriptive (expository) + compare/contrast

Remya Jose ----> sequential (biography)

Pelican Girl ---->sequential + problem , solution

Descriptive:

Describes a topic, idea, person, or thing by giving specific information about it.

Looks like...  Tastes like...

Sounds like... Feels like...

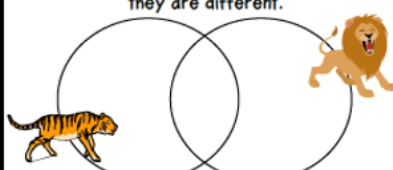
Examples... Smells like...

Clue Words:
for example, in addition, specifically, in particular



Compare/Contrast:

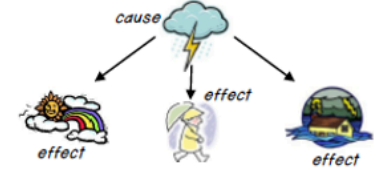
Shows how two or more things are alike and how they are different.



Clue Words:
different, unlike, alike, similar, however, both

Cause/Effect:


Shows the relationship between cause (why) and effect (what happened).



Clue Words:
as a result, therefore, because of, due to, reason why, consequently

Sequential:


Explains events or steps in order to tell how something is done or how something happens.



Clue Words:
first, second, next, then, after that, before, finally

Problem/Solution:

Discusses a problem and gives possible solutions to fix the problem.



Clue Words:
therefore, because of, consequently, reason why, leads to

Compound-Complex Sentence

Diagram illustrating the structure of a compound-complex sentence:

Tom | cried *independent clause*

and

because *dependent clause*

ball | hit | him

the

I | apologized *independent clause*

immediately

Name of the book	Comprehension	Fact	Qualitative	Example of hard part and comments
Thunderstorm	5,4	Realistic fiction , straightforward sequential	<p>The feeling of words and describing the situation instead of telling the story made the understanding hard.</p> <p>It had back and forth in the story. For example when something happened it explained what his father told her.</p>	<ul style="list-style-type: none"> • Emma Shivered • She gazed up the hill • Lamplight glowed from the windows • Brilliant flash of light • An enormous boom • It was hard for them to explain why how Emma's dad influence on her • It was hard for them to explain sequential of what happened

Name it	Verb it	Finish it
Water birds by Lisa Benjamin	describe	How water birds characters

First,

most birds can fly, some can swim, water birds can do both

Then,

the birds that can flight has light bone, those that can swim has webbed feet , strong muscle

Next,

water birds has strong muscles , web feet, light bones altogether

Finally, water birds need to flight for its immigration and need to swim to find the food , these to together caused has both attitude together . it knows as adaptation

Water Birds From the Sky to the Sea; Book 75

Name: _____

Date: _____

1.

What helps a bird to fly?

- a. their weight
- b. webbed feet
- ☒ c. hollow bones
- d. length of beak

2.

Explain why a water bird needs to be able to fly and swim.

A water bird needs to be able to fly and swim because some of there food is in the water and they need to get food

3.

Describe what special characteristics the water bird has that other birds do not have.

Some characters the water bird has that other birds do not have include they can fly and swim and they have wbed feet and some birds do not have that

Name: _____

Date: _____

1. Which of the following makes the sentence true?
Marisol like being a pelican until she remembered....

- a. She didn't like broccoli.
- b. She didn't like fish.
- c. She didn't like flying.
- d. She didn't like getting her belly wet.

2. Why did Marisol wish she was a pelican?

- a. She could fly away and not listen to her parents.
- b. She could eat peanut butter and pickle sandwiches whenever she wanted.
- c. She could fly away and not eat broccoli.
- d. She could fly above her house and see her family.

3. What lesson did Marisol learn in the story?

- a. Be careful what you wish for because it might be worse.
- b. Listen to your parents and do what they say.
- c. Flying isn't as fun as it looks.
- d. Broccoli is better than fish.

4. Explain what makes this book a fantasy.

it can not happens in real life. a peron can

not change and be a pelican

5. Write an ending to Pelican Girl.

Marisol wanted back to be a real girl . she doesn't want to be a pelican anymore.

Name: _____

Date: _____

1. Which of the following makes the sentence true?
Marisol like being a pelican until she remembered....

- a. She didn't like broccoli.
- b. She didn't like fish.
- c. She didn't like flying.
- d. She didn't like getting her belly wet.

2. Why did Marisol wish she was a pelican?

- a. She could fly away and not listen to her parents.
- b. She could eat peanut butter and pickle sandwiches whenever she wanted.
- c. She could fly away and not eat broccoli.
- d. She could fly above her house and see her family.

3. What lesson did Marisol learn in the story?

- a. Be careful what you wish for because it might be worse.
- b. Listen to your parents and do what they say.
- c. Flying isn't as fun as it looks.
- d. Broccoli is better than fish.

4. Explain what makes this book a fantasy.

it can not happens in real life. a person

cannot change and be a pelican

5. Write an ending to Pelican Girl.

Marisol wanted back to be a real girl . she doesn't want to be a pelican anymore.

Remya Jose's Great Idea: Book 11

Name: _____ Date: _____

1. The genre of this book is

☐ a. Historical fiction

☒ b. Fantasy

☐ c. Biography

☐ d. Poetry

2. Remya had a great idea for an invention because:

☒ a. She had so much work to do and not enough time.

☐ b. She didn't have electricity in her home.

☐ c. She needed to solve the problem.

☐ d. All of the above.

3. This book includes the following text features:

☒ a. Table of contents, glossary, and captions

☐ b. Table of contents, labels, captions, and maps

☐ c. Table of contents, headings, timeline

☐ d. Glossary, index, and photographs

4. What does the word rotate mean on pg. 11?

☐ a. To make something new

☐ b. A place where electricity is not used

☒ c. To make something move from side to side

☐ d. To have determination

5. Why did the author include the list on page 8?

☒ a. It is a way to explain how a washing machine works so that the reader could understand.

☐ b. It is a bulleted list of inventions from India.

☐ c. It explains how Remya used her creativity.

☐ d. All of the above.

6. Biographies often tell about important decisions that a person made and how they influence people's lives. Think about the important decisions Remya made and how they influenced her life. Use details from the story to support your answer.

Remya's decision to create a washing machine influenced her life in a lot of different ways. One of these ways was to save time cleaning and washing. On page 15, it says, "The whole process only took twenty minutes. It was much faster than washing clothes by hand".

student	book	Accuracy	fluency	comprehension
A	water birds	99	2	8
B	water birds	99	2	8
C	pelican Girl	100	3	9
D	Pelican Girl	100	3	9
E	Remya Jose	99	3	9
F	Remya Jose	99	3	9

Thank you.