

UTILIZING VISUAL IMAGERY SKILLS TO ENHANCE ENGLISH READING COMPREHENSION PROFICIENCY IN ADOLESCENCE

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ABSTRACT

English has become a crucial skill in the digital era, especially for adolescence. English can be divided into four basic skills, namely reading, writing, listening and speaking. Reading skills are often used as a learning medium. Skills in English reading comprehension are needed in the development of English language. Reading comprehension can be developed by utilizing visual imagery as a potential learning aid. Previous study has found that visual imagery skills can be utilized by elementary school students when working on exam questions in the form of expository text. However, there is still limited research focusing on adolescence and the utilization of visual imagery in English reading comprehension. This study aims to investigate the benefits of visual imagery skills in enhancing English reading Comprehension among adolescence. The participants in this study were 121 high school students at School XY in the city of Batam. Batam is a Special Economic Zone and a city that is relied upon as a catalyst for economic growth in Indonesia. Data collection for the study was conducted by distributing questionnaires. The collected data were processed using SPSS. According on the results, it is stated that there is a 60.3% influence of the English reading comprehension ability variable with visual imagery. The findings of this research can serve as a reference for educational policymakers, especially teaching strategies for language education in Batam City. In addition, this study can also be a reference for further research on visual imagery and English reading comprehension.

Keywords: Visual imagery, english reading comprehension, adolescents, language education, learning strategies

1. PREFACE

The development of digital technology has already had an impact on the fields of education and the community's economy. As technology advances, internet usage also grows and becomes a part of everyday life in society. The digital era has become a crucial factor for the new generation to become proficient in two languages (Wallin & Cheevakumjorn, 2020). Language serves as a tool for communicating with others. It enables us to share ideas, information, and feelings. Individuals can use language to communicate with people from different cultures and facilitate access to information from various sources (Grosjean & Miller, 1994). Language functions as a means of communication, allowing individuals to share thoughts, knowledge, and emotions with each other in their capacity as social beings (Anwar et al., 2023).

One of the languages that needs to be mastered is English. English is a language used for international communication (Sari, 2019). It's woven into various aspects of our daily lives, including business, politics, social interactions, education, and culture (Handayani, 2015). In the field of education, English plays a crucial role. However, according to the EF English Proficiency Index in 2022, Indonesia falls in the lower middle category with a score of 469 out of a possible 800. This places Indonesia at the 81st position out of 87 countries. The survey also points out that Batam City is among the cities in Indonesia with a score of 446 out of 800, categorizing it as having very low English language proficiency.

Based on the findings of the EF English Proficiency Index survey in 2022, Indonesian teenagers fall into the category of very low proficiency, scoring 420 out of a maximum of 800. The English language competence of Indonesian teenagers is below the global average of 451. This outcome contradicts the statements of experts regarding adolescents' language abilities. According to Vygotsky and Cole (1978), the language proficiency of teenagers is not only crucial for communication but also for their social and emotional development. It enables them to build relationships with peers, express themselves, and understand the world around them. The low competence in English among teenagers can pose challenges in forming relationships and gaining a broader range of information. These difficulties in forming relationships and obtaining information can have an impact on their emotional and social changes, particularly during the adolescent years.

The core competencies in English include four main skills: (a) Listening, where you're adept at processing spoken words or sentences (Aydoğan & Akbarov, 2014); (b) Speaking, which means you're skilled at expressing yourself using your voice and brain to create meaningful sentences (Celce-Murcia et al., 2010); (c) Writing, the ability to convey thoughts and ideas through written words (Darancik, 2018); and (d) Reading, the skill of understanding written language and interpreting written texts (Sadiku, 2015).

This research will focus on the competency of reading. Reading is an activity that involves various distinct processes, which ultimately come together as a unified action. These processes encompass cognitive activities related to understanding, conveying, and interpreting the meanings of written symbols, involving aspects like visual perception, eye movement, inner dialogue, and memory (Harianto, 2020). When the letter and word recognition process occurs, it can aid teenagers in learning new words. The introduction of these words enriches an individual's language competency and indirectly enhances their skills in writing, speaking, and listening. To fulfill these competencies, it is essential to have reading comprehension, which is the ability to understand the meaning of words or sentences being read. Reading comprehension involves using previous knowledge and contextual clues to understand what the author is trying to convey (Johnston, 1981; Irwin, 1986). The word "comprehension" stems from the Latin word "*comprehendere*," which means "the process of grasping or taking into one's mind" (Ferlazzo & Sypniewski, 2018).

Reading comprehension is essential not only for grasping textual content but also for facilitating broader learning and consequently, advancing education on a more expansive scale (Oakhill et al., 2019). Reading comprehension skills among Indonesian teenagers remain relatively low. Based on the observations of researchers, many high school students in Indonesia don't have a strong interest in reading. This sometimes makes it hard for them to understand what they're reading. As a result, they might misunderstand or misinterpret information. The underlying causes of these difficulties in reading comprehension are primarily due to limited vocabulary, lack of knowledge, and insufficient experience in applying suitable reading strategies. This can make high school students read slowly and feel confused. Proficiency in reading comprehension can significantly contribute to the educational development of adolescents (Barton, 2000). Reading comprehension ability is a vital competency for achieving success in academic, social, and professional environments (Robertson, 2019).

Reading comprehension can be enhanced by utilizing the ability to visualize in one's mind. This capacity to create mental visual representations is known as visual imagery. Visual imagery is an individual's ability to form mental pictures or illustrations based on received information (Wilson

and Gambrell, 1988). Visual imagery has been employed in previous studies to develop reading abilities in individuals. According to Irwin and Baker (1989), individuals with good reading skills tend to visualize images while reading. Anticipating, establishing connections, drawing inferences, posing questions, summarizing, and generating visual imagery are strategies identified by research to enhance reading comprehension (Küçüköğlu, 2013). Wood (2002) suggests that a good reader thinks about what they're reading, stays curious about the author's words, imagines the story or structure, makes conclusions from the text, and forms mental images. The combination of images and illustrations while reading can significantly enhance one's comprehension and memory (Gambrel & Jawitz, 1993).

Previous studies have shown that a person's reading comprehension can improve when they create mental images while reading. Using mental images while reading is really important for how well fifth and sixth-grade students in East Jakarta understand what they read (Lukman, 2005). Similarly, Chan et al. (1990) found that the visual imagery strategy is effective in enhancing reading comprehension skills in individuals with disabilities. According to Commodari et al. (2020) Visual imagery exert influence on the development of reading skills, with each ability (Reading comprehension, accuracy and speed) playing unique roles across different dimensions of reading proficiency.

Based on past research and discussions, there have been various studies on using visual imagery to improve reading comprehension. However, previous studies mostly focused on elementary school kids and individuals who had difficulty with reading. There's not much research that focuses on teenagers in high school. In high school, individuals are at a stage where they need social interaction and information to prepare for college and work. Also, previous research mainly centered around big cities with better access to education. They also focused on developing ways to use visual imagery for learning and how it connects to different types of texts. That's why this study aims to investigate the role of visual imagery in improving English reading comprehension, specifically with high school students in Batam.

2. RESEARCH METHOD

The research conducted using a quantitative method, involving the dissemination of questionnaires. In line with the research focus, two key variables were utilized, namely, "visual imagery" and "english reading comprehension". His study uses non-experimental quantitative research method. The design of this research is linear regression.

Participants were 83 tenth grade students and 38 eleventh grade students at a senior high school in Batam. Hence, a total of 121 students. Among the samples, fifty six (46.3%) were boys and sixty five (53.7%) were girls (see Table 1 for an overview).

Table 1
Student Gender Percentage Data

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Boys	56	46.3	46.3	46.3
	Girls	65	53.7	53.7	100.0
	Total	121	100.0	100.0	

The researcher used Ujian Nasional Bahasa Inggris Tingkat SMA/MA questions to measure English reading comprehension skills. These questions had 20 multiple-choice items. The assessment was graded using answer keys provided in official national exam preparation books.

Ujian Nasional Bahasa Inggris Tingkat SMA/MA were chosen because they align with the school's teaching curriculum. After testing its reliability, the assessment scored a Cronbach alpha of 0.629, indicating that it's a good tool for measuring English reading comprehension.

For measuring the participants visual imagery ability, the Object Spatial Imagery Questionnaire (OSIQ) was used in this study. The OSIQ questionnaire was adapted from Blajenkova et al. (2006). The OSIQ questionnaire, with its 25 items, showed good reliability in testing, as indicated by a Cronbach alpha value of 0.922.

3. RESULT AND DISCUSSION

The goal of this study was to see if there was a role between “English reading comprehension” and “visual imagery” ability. We processed the data using SPSS. The researcher first checked the validity, reliability, and linearity of the data. After confirming linearity, the researcher assessed the data's normal distribution. Subsequently, a linear regression test was conducted to investigate the potential relationship between “English reading comprehension” and “visual imagery ability”.

From the validity test of the OSIQ, three items, VI17, VI18, and VI20, were found to be uncorrelated because they had a significance level of $\text{sig} < 0.5$. Regarding the English reading comprehension assessment, two items, ERC 13 and ERC 17, were found to be invalid, also having a $\text{sig} < 0.5$. Based on the linearity test (presented in Table 2), the significance value for the deviation from linearity was 0.161, which is greater than 0.05. This result indicates a linear relationship between “English reading comprehension” and “visual imagery ability”.

Table 2
Linearity Test ERC and VI

			ANOVA				
			Sum of Squares	df	Mean Square	F	Sig.
ERC * VI	Between Groups	(Combined)	935.244	49	19.087	5.388	.000
		Linearity	715.596	1	715.596	202.017	.000
		Deviation from Linearity	219.648	48	4.576	1.292	.161
	Within Groups		251.500	71	3.542		
	Total		1186.744	120			

In the next step, a test of data normality was conducted (as seen in Table 3). The normality test results indicated a significance value of 0.173 for the English reading comprehension variable and 0.172 for the visual imagery variable. These results suggest that the data distribution in this study is normal, as indicated by $p > 0.05$ (p-values greater than 0.05) in the Kolmogorov-Smirnov test.

Table 3

Normality Test ERC and VI

One-Sample Kolmogorov-Smirnov Test			
		VI	ERC
N		121	121
Normal Parameters ^{a,b}	Mean	2.8817	10.3884
	Std. Deviation	.65278	3.14476
Most Extreme Differences	Absolute	.073	.073
	Positive	.073	.065
	Negative	-.064	-.073
Test Statistic		.073	.073
Asymp. Sig. (2-tailed)		.172 ^c	.173 ^c
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

According to Table 4, the correlation value (R) is 0.777. Based on this output, the coefficient of determination (R Square) is 0.603. This means that 60.3% of the influence on visual imagery can be attributed to the variable of English reading comprehension.

Table 4

Model Summary ERC and VI

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.777 ^a	.603	.600	1.98978
a. Predictors: (Constant), VI				

Based on the linear regression test (Table 5), the F-value is 180.741 with a significance level of 0.000, which is less than 0.05. This indicates that the regression model can be used to predict the relationship between the English reading comprehension variable and the visual imagery variable, showing that there is an influence of English reading comprehension on visual imagery.

Table 5

Analysis of Variance ERC and VI

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	715.596	1	715.596	180.741	.000 ^b
	Residual	471.148	119	3.959		
	Total	1186.744	120			
a. Dependent Variable: ERC						
b. Predictors: (Constant), VI						

Based on the significance values from the coefficients table (found in more detail in Table 6), a significance value of 0.000 was obtained, which is less than 0.05. Therefore, it can be concluded that the visual imagery variable significantly affects English reading comprehension. Additionally, based on the t-value, which is $13.444 > 1.9801$, it can be inferred that the English reading comprehension variable also significantly affects visual imagery.

Table 6
Coefficients ERC and VI

		Coefficients			
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	-.392	.822		-.476
	VI	3.741	.278	.777	13.444
					Sig.
					.635
					.000

a. Dependent Variable: ERC

4. CONCLUSIONS AND RECOMMENDATIONS

The study focused on the utilization of visual imagery skills to enhance the proficiency of English reading comprehension in adolescents, offering valuable insights into the potential advantages of integrating visual imagery techniques into English language education for this age group. The research findings suggest that visual imagery have the capacity to significantly improve reading comprehension among adolescents. according on the results, it is stated that there is a 60.3% influence of the English reading comprehension ability variable with visual imagery.

Based on the study's outcomes, several recommendations emerge: Firstly, educators and curriculum developers are encouraged to contemplate the integration of visual imagery techniques within the English curriculum designed for adolescents. This integration could involve the inclusion of exercises that encourage students to create mental images while engaging with textual content. Secondly, it is advisable to provide teachers with training on the effective instruction of visual imagery skills to their students. This training could involve workshops and professional development opportunities to enhance their capacity to implement these techniques within the classroom setting.

Thirdly, educational institutions and publishers should consider developing interactive learning tools and resources that leverage visual imagery to enhance English reading comprehension. These resources may take the form of multimedia content or software specifically designed to engage adolescents and facilitate their learning process. Lastly, the study underscores the need for further research to explore the enduring impact of visual imagery techniques on English reading comprehension and to identify the most effective methodologies for imparting these skills. In conclusion, the incorporation of visual imagery skills into English language instruction for adolescents holds substantial potential for enhancing their reading comprehension proficiency. By implementing these recommendations, educators and institutions can better support adolescents in their journey of English language learning.

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