

Effects of Illustration Types on the English Reading Performance of Senior High School Students with Different Cognitive Styles

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Abstract

Illustration is always used as an example to make the written text or the utterance more clear in general. In Winarski's opinion (1997), one picture equals thousands of words. That is to say, illustrations are capable to express the meaning of unfamiliar language or a great deal of information in the reading material by vivid pictures, tables, drawings, paintings and so on. As a result, illustrations are applied to many different fields including English language teaching. Based upon Song's 3 types of illustration classification (2005), decorative illustrations, explainable illustrations and promotive illustrations, this paper tries to investigate the effects of illustrations on the reading performance of senior high school students with different cognitive styles (field-dependence, field-mix and field-independence) in the process of English reading. The result shows that: 1). There is a significant correlation between illustration types and reading performance in terms of field-dependent students. The coefficient of explainable illustration to reading performance is the highest, while the lowest coefficient is decorative illustration. 2). As for field-mixed participants, their reading performance is also closely associated with illustrations. However, the coefficients are lower than that of field-dependent participants. Decorative illustration has no obvious relation to reading performance. Explainable illustration also reaches the highest coefficient, and it can better improve student's reading score than promotive illustration. 3). Speaking of field-independent students, no correlation has been found between decorative, promotive illustration and reading performance. However, there exists a significant correlation between explainable illustration and reading performance for field-independent participants.

Keywords: illustration, reading performance, cognitive styles

1. Introduction

Compared with the written language, illustration is able to convey more information by means of a chart, photo, map and so forth. A lot of researchers go into the study of illustration under this circumstance, and spare no effort to investigate its function in details. When combined illustration with reading performance, we find that it works quite distinctively on account of the individual differences. In fact, American psychologists Herman and Witkin (1977) hold the opinion that some people may have the ability to recognize and acquire more information from the environment, while others are maybe affected more by the inner world. The former belongs to the field-dependence, and the latter is field-independent learner. In order to have a deep analysis of students' reading performance, we classify all the participants in this paper into three types, field-dependence, field-mix and field-independence according to the scores of the Embedded Figure Test.

The present study attempts to research on illustrations and reading performance of senior high school students in terms of cognitive styles. Before going to study the effects of illustrations, we should have a look of the distribution of illustrations in the English textbook at first, because the textbook is one of the most essential reading material for senior high school students in China. After that, we are to discuss the correlation of three illustrations (decorative, explainable and promotive illustrations) and reading performance from the perspective of field-dependence, field-mix and field-independence cognitive styles.

2. Literature Review

2.1 The Definitions of Illustration

The Oxford Advanced Learner's English-Chinese Dictionary, 7th edition (2009), it offers three definitions:

- (1) A visual display in the magazines, posters, books and other things, especially targets at making it clear.
- (2) The process or the development of explaining something complex.
- (3) An example or instance that used to interpret something to somebody.

Collins Birmingham University International Language Database (1980) defines the word illustration as an example, which is to illustrate the content of a passage, and the illustration in a book is usually a drawing, photo, table etc.

Refer to the WordNet (2012), there are four meanings. The first one is an artwork, whose main purpose is to make the written text or the utterance more clear and interesting. The second one is to offer an explanation for written language by examples. Next one is a representative instance for readers when he or she reads the text. As for the last meaning, it is regarded as a visual display in the books, and is often made to interpret the meaning of complex language.

Above all, illustration in the book is employed to explain the written texts or make it easier to comprehend or even more attractive. That is to say, its basic function is to help the reader realize, understand or even appreciate the meaning in the reading passage.

2.2 The Dimensions of Illustrations

Several types of illustrations have been analyzed by a large number researchers in the former studies. And Alley (1994) puts illustrations into six major types. (1) photographs. (2) drawings or line art. (3) realia or authentic document from the target culture. (4) graphs and diagrams. (5) maps. (6) reproduction of works of art.

Taking different types of illustrations into account, Levin (1989) classifies illustrations into four parts: representational illustration, organizational illustration, interpretative illustration, and transformational illustration.

As far as Hunter (1987) is concerned, the followings are five types. Embellish Illustration, Reinforce Illustration, Elaborate Illustration, Summarize Illustration and Compare Illustration. Carney and Levin (2002). They categorize illustrations as decorational illustration, transformational illustration, organizational illustration, representational illustration, as well as interpretative illustration.

Tang (1994) summarizes the results of the studies based on a series of experiments done by many professional researchers. In his opinion, there are three main functions of specific illustrations: the function of intensifying, the function of decorating and that of disseminating.

Song Zhenshao (2005) also points out that illustrations have three basic functions: (1) decoration function: this kind of illustration is often independent from the text. In other words, it is separate and not related to the written language, at the same time, the text can't be influenced by the illustration. (2) explain function: be different from the decorational illustration, it is not only closely related to the text, but also plays a crucial and indispensable role during the reading comprehending. For the purpose of guiding readers to acquire the basic meaning of the text, it displays the complex theory and sophisticated language by a vivid and visual way. (3) promote function: which refers to the illustration both serves the text, and provides extra information. Two main functions can be made. Firstly it's able to extend the message and broaden eyesight. Then it can promote readers' reading ability and performance, including their own critical thinking and observation etc.

In this paper, we take the Song's dimension in accordance with the present research.

2.3 Illustration and Reading Performance

There is still a controversy about the role of illustration in the reading comprehending. Samuels (1970) who proposes the famous attentional hypothesis, states that illustrations could distract readers' attention in some degree, and increase the degree of difficulty in getting the main idea of the passage. The negative effect of illustration in the reading process is also carried out by Torcasio and Sweller (2009). Too much information provided by the text and illustrations, which causes the reading material to be too complex to identify quickly.

However, a large percentage researchers don't agree with the opinion that illustrations would have a negative effect on the reading. In the field of reading comprehending, Carney (2002) takes illustrations and reading material into consideration, argues that readers' reading ability and performance on plenty of text-dependent cognitive results could be enhanced by displaying some illustrations. In addition, he admitted that different illustrations, which have unique functions, would not work in the similar way.

Donald (1983) investigates the long-term memory between the text with illustrations and without illustrations. It is suggested that readers are capable to acquire one third more information than none-illustration text including

children and adults. As Lu Jufang (2012) claims that employment of illustrations in EFL classrooms can prompt learners' understanding as well as memory, and hence facilitate students' learning ability in a effective way.

According to the above research on the relationship between them, we can find that the majority believe that illustrations act as a positive role in reading and comprehending.

2.4 Effect of Illustrations on Reading Performance with Different Cognitive Styles

Studies on the relationship between illustrations and reading performance based on cognitive styles are very few. Angeli and Valanides (2004) regard the illustrations as a positive and useful method of comprehending the written language, after considering the effect of illustrations with readers' cognitive styles. So it can be concluded that attaching visuals to textual explanations is able to enhance their understanding in the reading process, and the effect of illustrations largely depends on the cognitive styles.

Zhang Hongyi (2010) adopts junior middle school students as the experimental participants in his paper and studies the effects of illustrations and presentation mode on the cognitive load of students with different cognitive styles. The results illustrate: (1) the cognitive load of the field independent participant is lower than that of the field-dependence obviously, hence the reading score of field-dependence is better than that of field dependence. (2) the effects of explainable illustration and descriptive illustration outperform than others.

3. Methodology

3.1 Research Questions

This paper sets out to research on the correlation between illustrations and reading performance of senior high school students with different cognitive styles from two stages.

Stage One:

Before analyzing the effects of illustrations on the reading performance, we should try to verify the use of illustrations for reading material in the textbook. Therefore, the first step is to identify the distribution of illustrations in the English textbook. Then we can examine the relationship between illustrations and written text.

Question for Stage One:

(1)What are the characteristics of English Textbook Illustrations in People's Educational Press (PEP)?

After finding out the use of illustrations in the reading materials, this stage is to discuss the correlation between illustrations and participants' reading performance with field-dependent, field-mixed and field-independent cognitive styles respectively by following three questions.

Questions for Stage Two:

Stage Two:

(2) What is the correlation between illustrations and English reading performance of field-dependent students?

(3) How do illustrations affect English reading performance of field-mixed students?

(4) In terms of field-independence, to what extent are illustrations correlated with students' English reading performance?

3.2 Participants

The samples consist of 119 students coming from the NanChang NO.17 senior high school in JiangXi province, and their ages are nearly between sixteen and eighteen. Among these 119 senior high school students, 57 are girl students (47.9%) and 62 are boy students (52.1%). They began to study English from primary school grade three, 3 years at Junior Middle School, and 1 year at Senior High School. English is their compulsory course and textbooks they used in the past are of the same kind PEP English textbooks.

3.3 Instruments

This study will use a quantitative methodology, including the framework of illustrations proposed by Song (2005), Embedded Figure Test(1998) and English Weekly Newspaper.

3.3.1 Tests for Reading Performance

This paper adopts the reading tests from the guidance material English Weekly, which is designed for grade one in senior high school. There are four newspaper tests, and each test has five passages with 20 questions. Among them, Questions 1-15 belong to the multiple-choice, which select the right one from four alternative choices, and the other multiple-choice adopted by Questions 16-20 is to pick five from seven options. One correct answer is worth one point, then the score will be calculated according to the number of correct answers. The highest score

in this test for reading performance is 20, while the lowest score is 0.

The first newspaper test has no illustrations. In the second newspaper test, we add five decorational illustrations. In the meantime, the third one has five explainable illustrations, and the last one is full of promotive illustrations. Students' reading performance with the influence of three types of illustrations can be reflected by means of the scores of 4 newspaper tests. For example, the scores of the last test represent the effect of promotive illustrations on the reading performance of senior high school students.

3.3.2 Test for Cognitive Styles

In order to test the cognitive styles, this author the measurement Embedded Figure Test put forward by the Center of Applied Psychology (1998) in Beijing Normal University. In reality, this is the Chinese translation version of The Group Embedded Figures Test (GEFT) designed by Witkin, Oltman, Raskin, and Karp in 1971. It is regarded as one of the most authoritative test to identify individual' cognitive styles

This paper has three sections in total, and the score is only focused on the number of correct answers in the second and third section. One correct answer is one point, but the wrong answer is worth zero point. That is to say, the total score is 20 points. And according to the statistical scores of all the participants, we can get the final scores T after a series of operations. The students whose final scores T between 27.84-41.71 are considered as field-dependent cognitive style learners, whose total scores between 41.71-57.44 are the students of mixed cognitive style, and the rest (57.64-72.79) can be regarded as field-independent learners.

3.4 Data Collection and Analysis

Data collected from the Embedded Figure Test and the reading scores with unique illustration types are analyzed by SPSS17.0

4. Results and Discussion of the Research

4.1 Characteristics of English Textbook Illustrations

In stage one, for the purpose of studying the relationship between the English reading performance of senior high school students and different types of illustrations, we should have a general understanding of the illustrations used in senior high school English textbooks, which paves the way for the experiment in stage two.

The English textbooks employed in this paper are published from People's Educational Press (PEP). In total, there are 11 books designed for senior high school students. Book 1-5 belong to the compulsory textbook, and Book 6-11 are optional textbooks. This paper only focuses on the compulsory textbooks in the following analysis.

According to Song Zhenshao (2005), the function of illustrations can be classified into decorational, explainable and promotive illustrations, the following table shows the distribution of illustrations in the English textbooks.

Table 1. Descriptive statistics of illustrations in the textbook

	DI		EI		PI		Total	
Book 1	4	10.53%	13	34.21%	21	55.26%	38	100%
Book 2	3	6.67%	17	37.78%	25	55.55%	45	100%
Book 3	5	13.89%	20	55.56%	11	30.55%	36	100%
Book 4	11	20.75%	15	28.30%	27	50.95%	53	100%
Book 5	2	5.71%	17	48.57%	16	45.72%	35	100%
Total	25	12.08%	82	39.61%	100	48.31%	207	100%

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

It can be seen that the PEP English textbooks 1-5 include a large number of illustrations. The total number of illustrations used in the textbooks is 207. There are 25 decorational illustrations, 82 explainable illustrations and 100 promotive illustrations respectively. Promotive illustration (48.31%) takes almost half of the total number, explainable illustration occupies 39.61% of all the illustrations, and few decorational illustrations used in the textbook with only 12.08%.

We can realize that illustrations play an important role in the reading material due to the total number of them. In other words, the existence and function of illustrations can't be ignored. And it is necessary to go into study on

the relationship between the reading performance of different students and illustration types.

However, reading is a complicated process which can be largely influenced by a set of factors, such as cognitive style, gender, individual characteristics, motivation, preference etc. Among them, cognitive style as one of the most essential factors of individual differences, which is capable to reflect the way of thinking and understanding the world. In this paper, all the participants will be classified into three groups in accordance with the scores in the EFT, and they are field-dependence, field-mix and field-independence respectively. We're going to analyze the distribution of cognitive styles in the following.

4.2 The Relation between Illustrations and English Reading Performance of Field-Dependent Students

4.2.1 The result of EFT

Table 2. Descriptive statistics of senior high school students' cognitive styles

	N		Minimum	Maximum	Mean
FD	14	11.76%	37.21	41.71	39.4288
FM	60	50.42%	43.96	57.44	50.4536
FI	45	37.82%	57.63	68.67	62.2171
Total	119	100%	37.21	68.67	53.6049
Valid N	119				

Note: FD: Field-dependence. FM:Field-mixed. FI: Field-independence.

Table 4.2 displays a distinct description data for three cognitive styles. 60 students (50.42%) belong to field-mixed cognitive style, 37.82% (45 students) of all the participants are field-independent students. And only 14 students are regarded as field-dependent participants, which is account for 11.76% of the number of total participants.

Considering the differences between the three types of cognitive styles, we are going to discuss the inner relationship between the effect of illustration types and participants' reading performance from the perspective of field-dependence, field-mix and field-independence respectively in the following sections.

4.2.2 The Relation between Illustrations and Reading Performance of FD Students

For the purpose of recognizing the acute correlation between illustrations and reading performance, we set out to analyze the different kinds of illustrations and the reading performance of field-dependent students in details.

Table 3. Reading performance of FD students

	N	Mean	Std. Deviation
None	14	10.36	3.249
DI	14	9.5	2.504
EI	14	11.79	2.486
PI	14	10.5	2.682
Total	56		

Note: DI: Decorational illustrations EI: Explainable illustrations PI: Promotive illustrations

The reading performances of field-dependent participants with three types of illustrations are presented clearly in Table 3. Among 14 field-dependent students' reading performance, the mean score of explainable illustrations is the highest (11.79), and the mean of decorational illustrations reaches the lowest point (9.5). The second and third high means are promotive illustrations and none illustration respectively 10.5 and 10.36.

The mean of reading performance with illustrations is higher than that without illustrations in general. And this corresponds with the research of Tao Yun and Shen Jiliang (2003). They studied on the characteristics of senior high school students' reading performance, finally finding that the reading performance with illustrations is

greatly superior to that without illustration in terms of reading scores.

In addition, explainable and promotive illustrations are better at improving field-dependent participants' reading performance than decorative ones in some degrees. However, it is not sufficient to make a conclusion that there is a significant correlation between field-dependent participants' reading performance and the function of explainable and promotive illustrations. So Pearson Coefficients will be applied to check whether the correlation between them is significant or not in the next step.

Table 4. Correlation between reading performance with different illustration types among FD students

	N	Pearson Correlation	Sig.(2-tailed)
DI	14	.601*	0.023
EI	14	.953**	0.000
PI	14	.790**	0.001

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

* * The mean difference is significant at the 0.01 level. (2-tailed).

* The mean difference is significant at the 0.05 level (2-tailed).

All the scores of Pearson Correlations are higher than 0.6 according to the data from Table 4.4, and the mean differences are significant at the 0.05 level. In other words, there indeed exists a significant correlation between the effect of illustrations types and the reading performance of participants from the perspective of field-dependence cognitive styles.

Among them, the Pearson Coefficient of explainable illustrations and field-dependent participants is the highest (0.953**), which indicates that the reading performance of field-independence is closely related to explainable illustrations. Secondly, the coefficient of field-independence to promotive illustrations is 0.790**. Furthermore, decorative illustrations are also strongly associated with reading performance due to the coefficient of 0.601*.

Although the correlation is significant among these three types, it is obvious that explainable and promotive illustrations perform better than decorative illustrations. Probably due to the fact that explainable illustration and promotive illustration are designed to serve the text. Explainable illustration aims to make the unfamiliar language and complicated meaning clear, at the same time, promotive illustration is to facilitate readers to think deeply and master the central idea of written text. This is the reason why explainable and promotive illustrations perform better than decorative illustrations on reading performance of field-independence.

4.3 The Relation between Illustrations and English Reading Performance of Field-Mixed Students

Table 5. Reading performance of FM students

	N	Mean	Std. Deviation
None	60	12.43	2.554
DI	60	12.47	2.665
EI	60	13.05	2.801
PI	60	12.65	3.134
Total	240		

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

Table 5 displays the number, mean and standard deviation of field-mixed participants' reading performance. Among the sixty field-mixed cognitive style readers, we can find that the mean score of reading performance without illustrations is 12.43, which is the lowest one among these four reading scores. The mean of decorative illustrations is 12.47, and that of promotive illustrations is 12.65. The highest one (13.05) is the mean of reading performance with the help of explainable illustrations.

Firstly, the mean of explainable, promotive and decorative illustrations are higher than the mean of none

illustration, which indicates that illustrations can improve participants' reading performance to a certain degree. It's similar to the research of Chen Hongxiang and Zhang Biyin (1997). They maintain that illustrations can enhance primary school students' reading performance, after making an experiment in the effect of illustrations on the reading performance of grade three and grade five students.

Secondly, it's not hard to conclude that the effects of illustration types on field-mixed participants' reading performance varies in terms of the mean scores (13.05, 12.65, 12.43, and 12.47). However, we still don't know to what extent illustration types associated with field-mixed students. So we are going to consider the correlation between illustration types and reading performance of field-mixed students by using Pearson Correlation.

Table 6. Correlation between reading performance with different illustration types among FM students

	N	Pearson Correlation	Sig.(2-tailed)
DI	60	.119	0.364
EI	60	.414**	0.001
PI	60	.485**	0.000

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

* * The mean difference is significant at the 0.01 level.

Table 6 is the result of the Pearson Correlation between illustration types and field-mixed participants' reading performance. From this table, we can see the coefficients of reading performance to decorational, explainable and promotive illustrations are 0.119, 0.414**, and 0.485** respectively. That is to say, there is no significant correlation between reading performance and decorational illustrations. As explainable and promotive illustrations are significant at the 0.01 level, we can come up with the conclusion that both of them are closely and strongly connected to participants' reading performance in terms of field-mixed senior high school students. And the highest coefficient is 0.485** between promotive illustrations and reading performance.

What we've concluded in this Table 6 is the same as the experiment of Zhang Hongyi(2010). He tries to compare the effect of illustration types (explainable illustration, descriptive illustration and decorational illustration) on reading comprehending of junior middle school students, finding that the explainable and descriptive illustrations outperform than decorational illustrations to some extent.

4.4 The Relation between Illustrations and English Reading Performance of Field-Independent Students

Table 7. Reading performance of FI students

	N	Mean	Std. Deviation
None	45	13.04	2.844
DI	45	12.84	2.495
EI	45	13.69	2.566
PI	45	13.31	2.592
Total	180		

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

In order to explore the relationship between illustration types and field-independent students' reading performance, it's necessary to look at the characteristics of students' reading performance. As for 45 field-independent cognitive style students, the mean score of reading performance with explainable illustrations is 13.69, which reaches the highest level, and the lowest mean is decorational illustrations (12.84). Between them, the mean of none illustration is 13.04. In addition, the mean score of promotive illustrations (13.31) is higher than that of none illustration.

Speaking of explainable and promotive illustrations, the mean scores of these two types are better than the mean of none illustration. However, reading score with decorational illustrations is even lower than that without

illustration.

It shows that explainable and promotive illustrations lead to better reading performance of field-independence. And to be more exact, explainable illustration performs better than the promotive illustration.

The effect of decorational illustrations is not so great as explainable and promotive illustrations on account of the features of decorational illustrations. This kind of illustration is not so relevant to the written text, in other words, its main function is to decorate the text. Therefore, it may divert field-independent participants' attention from the reading and comprehending in a certain extent.

Since we've realized there exists a close relationship between illustration types and reading performance of senior high school students with field-independence, it's still a need to explore the correlation between them in depth. Therefore Pearson Correlation will be employed in the following.

Table 8. Correlation between reading performance with different illustration types among FI students

	N	Pearson Correlation	Sig.(2-tailed)
DI	45	0.251	0.097
EI	45	.341*	0.022
PI	45	0.202	0.184

Note: DI: Decorational illustrations. EI: Explainable illustrations. PI: Promotive illustrations.

* The mean difference is significant at the 0.05 level.

From the statistics above, we can see clearly that coefficients of decorational, explainable and promotive illustrations to reading performance are 0.251, 0.341*, 0.202 respectively. According to the two coefficients 0.251 and 0.202, there exists no significant relationship between decorational, promotive illustrations and field-independent participants' reading performance. However, the coefficient of reading performance to explainable illustrations is 0.341*, and it is significant at the 0.05 level. What can be drawn that, explainable illustration is significantly associated with reading performance with field-independence cognitive style, which is in accordance with the research conducted by Carney and Levin (2002). According to the five categories of illustrations conducted by them, explainable illustration can better assist students in identifying and clarifying the difficult text content than other four illustration types (decorational, transformational, organizational illustration, as well as representational illustration).

4.5 Discussion

Based on the means of reading performances of participants with field-dependent, field-mixed and field-independent cognitive styles in Table 4.3, 4.5 and 4.7, it's obvious that field-independent participants' reading performance is the highest, the reading score of field-dependence is the lowest, and the mean score of students with field-mix is between them. It actually corresponds with the findings of Ellis (1985), who has studied the language and language learning from the point of cognition for over fifty years. He found that field-independent learners could do better at non-communicative and more flexible tasks, while field-dependent students are more likely to do well in using and speaking language in our daily life.

Then in terms of the coefficients of the effects of illustrations to all the cognitive style students' reading performance, it's certain that the highest coefficient belongs to field-dependent senior high school students, and the Pearson Correlation between illustrations and field-independent students' reading performance is the lowest one, and the middle is field-mix.

The reason for this phenomenon is that field-independent readers show a clear preference for the inner world. They are good at thinking independently and more skilled in solving with questions presented in the written text, while field-dependent learners would rather get in touch with the situation or the external environment. Consequently field-dependence are more likely to be influenced by other factors like illustrations than field-independence. As for field-mixed readers, they not only possess the characteristics and features of field-independent students, but also that of field-dependence cognitive style students. So the coefficient of field-mixed learners' reading performance to illustrations ranks the second highest.

Speaking of the effects of illustrations, all the three illustration types can promote senior high school students' reading performance in different degrees. However, the effects of illustrations from the highest to lowest are as

below: explainable illustration, promotive illustration and decorational illustration according to the data presented in Tables 4.4, 4.6 and 4.8. And among all the illustrations, explainable illustration plays the most important and significant role in improving reading performance. Then the second highest one is promotive illustration, which is also beneficial to the reading and reading performance. However, the effect of decorational illustrations on students' reading performance is not as significant as the former two types.

Explainable and promotive illustrations are strongly connected to the reading material due to their own unique features. Explainable illustration's function is to explain the text by some vivid and relevant illustrations for readers. And promotive illustration promotes readers to open their eyesight, and targets at the profound meaning in the passage. Both of them can decrease the difficulty of understanding the meaning, getting the main idea of the written text, and improving students' reading skills like scanning and skimming. On the contrary, decorational illustration is always independent of the text, and its function is just decoration or making the reading material more attractive. In summary, teachers should realize the existence and importance of illustrations, then master the classification and function of these illustrations. Only in the way, teachers are capable to guide students to figure out illustrations and make a full use of them in the English reading class, especially explainable and promotive illustrations.

5. Conclusions

Some meaningful implications can be concluded for English teachers and students based on the major findings in the paper. From the distribution of illustrations in the English textbook, it is not hard to find out the fundamental role of illustrations in English reading. Therefore much more attention should be paid to the meaning of illustrations by teachers and students in the reading process. Considering the three illustrations involved in this paper, decorational, explainable and promotive illustrations, teachers must have a good understanding of them before employing these illustrations to the English reading respectively in the English class. It's worth noticing that explainable illustrations and promotive illustrations outperform than decorational illustrations. So teacher need to guide students to classify these illustrations and make full advantages of explainable and promotive illustrations. Besides, field-dependent learners are more easily influenced by illustrations so that this kind of students should work hard to use them.

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