

Developing Students' Viewing Skills Based on Visual Grammar Theory

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Abstract: *With the emergence of various new technological means, people have entered the "era of reading pictures". The transmission of information is no longer presented in the form of text, and multimodal discourse in the form of pictures, graphics, video and audio can also transmit information. Textbook illustration, as a visual textbook resource, is closely related to students' vision, and is an important carrier to cultivate students' reading skills. In the teaching process, students improve their viewing skills by "acquiring the representation function and understanding the visual connotation", "paying attention to the interactive function and predicting the direction of events" and "observing the composition function and perceiving visual information".*

Keywords: *Visual grammar theory; Viewing skill; High school English; Images*

1. Introduction

The rapid development of multimedia makes the information composed of text as a single mode no longer meet the diversified learning needs of students, and the information composed of text, sound, image and other modal resources is constantly filled with students' life and learning. According to the English Curriculum Standards for Senior High Schools (Revised in 2000, 2017 edition)^[1], language skills are divided into comprehension skills and expressive skills, including listening, speaking, reading, viewing and writing skills and their comprehensive application. Among them, the skill of viewing usually refers to the skill of understanding meaning by using figures, tables, animations, symbols and videos in multimodal discourse.

Textbook illustration is a visual textbook resource, which directly links students' vision and is an important carrier to cultivate students' viewing skills.^[2] Together with writing and language, it cultivates students' observation, cognition, understanding, memory, expression, aesthetic ability, learning attitude and emotion. However, Jiang Lianjiang et al.^[3] pointed out that at present, English teachers in primary and secondary schools still have shortcomings in the use of textbook illustrations, such as difficulties in reading, application and editing. At the same time, some teachers failed to consider students' hobbies and cognition when applying illustrations, which resulted in little teaching effect and failed to improve students' viewing ability.

2. Visual grammar theory

Kress & van Leeuwen (2006)^[4] pointed out visual grammar theory in *Reading images: The Grammar of Visual Design*. This theory is based on the three functions of Halliday's systematic grammar, namely conceptual function, interpersonal function and discourse function, and puts forward three corresponding functions, namely representation function, interaction function and composition function. At first, visual grammar theory was mostly used in the media field, such as the multimodal metaphor construction of public service advertisements or the multimodal discourse analysis of movie posters. In recent years, the visual grammar theory has been gradually applied to the study of textbook images due to the increasingly clear interpretation of the internal elements of image resources and the relationship between images and texts, as well as the arrival of the era of picture reading.

Representation function in visual grammar theory can be divided into narrative representation and concept representation, and the difference between the two lies in the existence of vector. The vector is composed of oblique lines between image elements, and the movement of characters, eyes, etc., can be composed of vectors. In narrative reproduction, the image presents a dynamic picture, showing a certain

event, including the sender and receiver of the action. Conceptual representation is a static picture, including classification process, analysis process and symbolic process.

The interactive function is to have emotional interaction with image readers, and convey different emotions through eye contact, distance and perspective. The contact can be divided into giving and request. Giving means that there is no eye contact between the image figure and the reader, but they just want the reader to provide some information. Request refers to the direct eye contact between the image figure and the reader, which can make the reader have a strong resonance or identity with the image figure. Distance is divided into short distance, medium distance and long distance. Perspective is subdivided into superiority, inferiority and equality.

The composition function carries out artistic design by means of information value, frame, significance, highlighting the main position of the image and reflecting the aesthetic character of the image.

3. The connotation of "viewing" skills

According to the English Curriculum Standards for General High School (2017 Edition, Revised in 2000), "viewing" in language skills refers to the skills of understanding meaning in multimodal discourse, such as tables, graphics, animations, symbols, and videos. The ability to understand a text requires not only understanding the surface meaning of the text, but also "viewing" the intention and emotional attitude indirectly expressed by the illustrator. Thus, in the process of "viewing," cognitive development and thinking development go hand in hand. Yang Luna and Wu Zunmin combined with previous studies, put forward four levels of ability to view.^[5](Figure 1) From low to high, there are: the first layer, the understanding of the information presented by the material; The second layer is to appreciate and evaluate the information that the material tries to convey. The third level, combined with their own knowledge to the material appreciation and evaluation; The fourth layer is to transfer and innovate the knowledge gained through "viewing" in new situations.

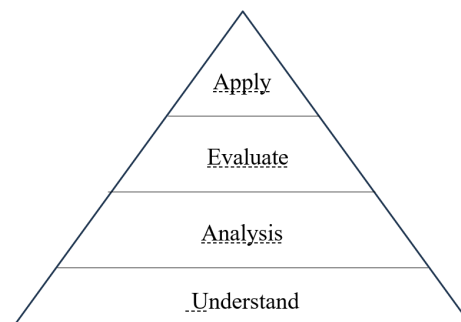


Figure 1: Viewing ability hierarchy chart

According to different teaching links and the ability level of "viewing", teachers need to cultivate students' "viewing" skills from simple to deep, and constantly improve students' thinking ability.

4. Illustration using strategy and "viewing" skills training

4.1. Obtain the representation function and understand the visual connotation

The mode of multimodal communication profoundly affects students' learning preferences. Therefore, making full use of image reproduction is often more attractive than text. Before the new unit is opened, teachers can use illustrations to activate students' learning interest, such as intercepting the information in the illustrations to guide students to guess and stimulate their curiosity; Present illustrations related to the topic of this unit to mobilize students' learning experience and knowledge, and help students quickly enter the English learning situation; Combined with the content of the illustrations, relevant questions are raised to promote students' ability to recognize pictures, thus triggering students' thinking and cultivating students' critical thinking ability.

The representation function presents the objective things in a certain background and their relationship with the outside world, in short, the specific content expressed by the image. Each unit of the teaching textbook is equipped with a theme map, and each theme map occupies a page. It has the

characteristics of gorgeous colors, rich layers and focusing on the theme, which can quickly attract students' attention, so that students can establish the relationship between vision and image, image and learning content, and promote students' understanding of the theme map when introducing the unit theme. In the teaching process, teachers should guide students to observe the characters, text, environment and other elements in the images.

When teachers interpret textbook illustrations based on the theory of visual grammar, they need to find the points that fit with teaching and tap the teaching value, so as to realize the interpretation and understanding of textbook illustrations. From the perspective of reproduction function, it can be divided into narrative reproduction or concept reproduction. If it is narrative reproduction, teachers can guide students to observe the clothes, environment, eyes and the relationship between the characters in the illustrations, and what kind of picture is depicted. From the perspective of concept reproduction, teachers should guide students to observe the shapes and details of things in the images to help them understand the content of the textbook.

The following takes the theme chart of Adversity and courage (as shown in Figure 2) as an example.

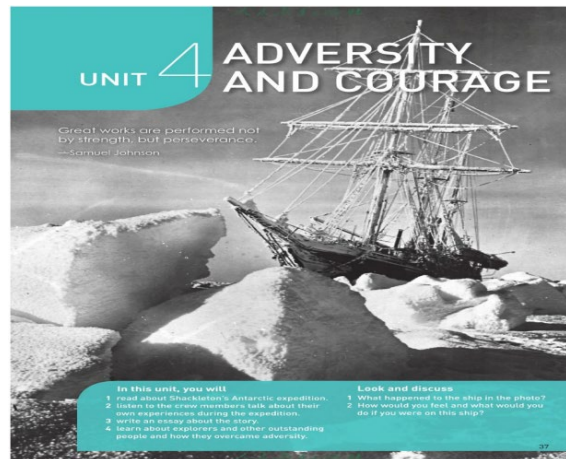


Figure 2: Unit 4 Adversity and courage

Figure 2 shows a ship stranded in a glacier, which aims to guide students to realize the dangers of the environment. First, teachers can design question chains to find the meaning of representation. The author first posed the question "What can you view in this picture?" "What is the weather like?" "How can you describe the ship?" By allowing students to observe the current situation of the environment and the boat, they become aware of the birth of danger. Then go on to ask questions about the details in Figure 2. "Were there anyone on the ship?" "Have they survived?" "What happened to the ship in the photo?" "How would you feel and would you do if you were on the ship?" to guide students to the possible events in the perceptual image of their environment to stimulate students' curiosity.

4.2. Focus on interactive functions and predict the direction of events

Interactive function is the process of interaction between students and image characters. In the process of interaction, students can predict the connotation of the illustrations and the emotions expressed, and then predict the direction of the event. The interactive function focuses on the emotional interaction of image readers, and conveys different emotional attitudes through eye contact, distance, perspective, modality and other ways.

Teachers need to have students look at the person or thing in the image from multiple perspectives; Different perspectives convey different information to illustration designers; Judge whether the characters in the illustrations make eye contact with the students. If they do, the teacher should guide the students to understand the images, thoughts and feelings of the characters in the pictures through their eyes in combination with the content of the text. For illustrations with high modality, teachers can let students explore the details in the illustrations; for illustrations with low modality, teachers can guide students to give full play to their imagination and use their own words to make the illustrations three-dimensional, so as to improve students' thinking ability and expression ability.

The following is the theme picture of Unit2 Healthy lifestyle of Optional Compulsory English for senior high school (as shown in Figure 3).

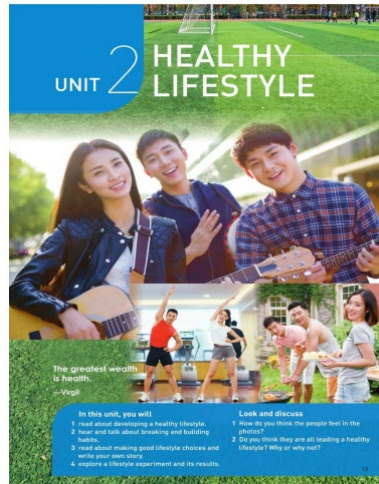


Figure 3: Unit 2 Healthy lifestyle

Figure 3 shows the students holding the guitar and exercising, and the eyes of the people in the image are looking directly at the reader. Therefore, in the teaching process, teachers should guide students to observe the illustrations from the interactive function and understand the interactive function. The people in Figure 3 are all smiling, and the reader can feel the friendly relationship. The reader can be infected by this atmosphere and be more willing to join the movement. Secondly, get the meaning of the topic and predict the development direction of the content. After the students read the images, the teacher asks, "How do you think the people feel in the photos?" "Do you think they are all leading a healthy lifestyle? Why or why not?" Through these two questions, let students perceive the importance of healthy life.

4.3. Observe the composition function and perceive visual information

The composition function includes three kinds of resources: information value, framing and Saliency.^[5] The information value is that the left side of the image is usually known information, and the right side is unknown information. Saliency means that the image highlights important information or important people through the allocation of colors. Framing refers to the segmentation method between image and text, and the common segmentation methods are around and around. Students can accurately extract visual information by observing the differences in composition.

From the composition function, teachers can guide students to explore the unknown information in the illustrations according to the information value, and stimulate students' learning interest in the content of the textbook. In addition, teachers need to selectively explain the highlighting ways and connecting means of composition elements in images, so as to cultivate students' ability to appreciate and create beauty.

The following takes Unit 4 Natural disasters (as shown in Figure 4) as an example.

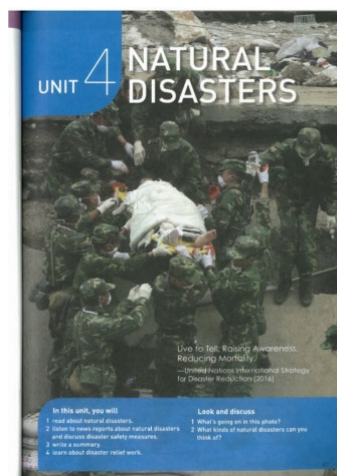


Figure 4: Unit 4 Natural disasters

Figure 4 shows the scene of soldiers trying to save the victims. The color in the middle is white, which can quickly attract students' attention. Through this composition, students realize that in the face of disaster, the strength of people's unity can warm people's hearts.

In addition, teachers should provide enough classroom multimodal resources to provide a foundation for cultivating students' "viewing" skills. To cultivate the skills of "viewing", teachers should combine the content of textbooks and the laws of students' physical and mental development, carefully study contemporary educational concepts, collect visual materials from multiple dimensions to carry out teaching activities, and ensure that students can enrich their cognitive concepts under systematic practice, gradually improve the skills of "viewing", and become all-round talents who meet the requirements of society. In the selection of teaching materials, teachers should start from their own teaching experience, that is, they should choose inspirational visual materials that are displayed for students and have a certain guiding role, and encourage students to spontaneously invest their energy in visual materials.

Teachers should carry out the visual and expression training simultaneously, and develop the "viewing" skill comprehensively. In the process of English teaching, teachers tend to "view" and "read", ignoring the relationship between "view" and "speak", failing to achieve the purpose of integrating knowledge acquisition and expression skills. No skill in English is isolated, and each skill intersects with the other. In the teaching process, teachers should guide students to use "viewing" and the practice process of communication in writing. They should not only pay attention to the superficial understanding of "viewing", but also lead students to link the information they know with "speaking" and "writing", so as to achieve the purpose of developing multiple language skills in parallel. The lack of any one of the skills of listening, speaking, reading, reading and writing is bound to have an impact on junior middle school students' English learning. This lack of integration of multiple skills is one of the urgent problems to be solved in current English teaching. Teachers need to give targeted guidance to junior middle school students to reverse this teaching situation.

Strengthen the guiding role of teachers and enrich the skills of "viewing". The teacher's dominance in the English class is directly related to the speed of students' development. Positive and correct guidance can improve students' skills and qualities quickly, and increase students' interest in learning English knowledge; Wrong guidance will seriously hinder students' all-round development process and reduce students' participation in English class. Therefore, in order to cultivate students' "reading" skills, teachers need to make teaching objectives according to learning situation based on the analysis of teaching materials. By adopting appropriate teaching methods and strengthening the guidance of students' "viewing" skills, students' learning level can be further improved.

5. Suggestions for students to observe illustrations

In order to improve viewing ability, students must first change the way they read pictures. Students not only need to understand the information that the illustrations want to convey through intuitive feeling, but also need to analyze the images carefully through visual grammar theory.

Based on the theory of visual grammar, students can read and analyze illustrations comprehensively and systematically. In addition, when students cannot understand the connotation of illustrations, they should consciously refer to the theory of visual grammar and interpret the illustrations from three levels: representation meaning, interaction meaning and composition meaning.

First of all, students should observe the representation of the illustration's meaning, and judge whether it is narrative representation or conceptual representation, action process, reaction process or speech and psychological process. If it is conceptual representation, the judgment is classification process, analysis process or symbolic process. Different modes of communication correspond to different characteristics. The second level determines the intention of the illustrator from whether there is direct eye contact with the image viewer, the distance, the different Angle of view and the level of modality, and interacts with the designer across the limitations of time and space. The third level analyzes the information value theory corresponding to the distribution of composition elements in the picture, the prominence of important composition elements and the division and connection between elements, layer by layer, not only analyzes the content and composition of the image surface, but also can deeply understand the connotation of the image behind the thought to convey."

6. Conclusion

Through research and analysis, this paper analyzes the illustrations of PEP senior high school English textbooks based on the theory of visual grammar. The research shows that illustrations are of high value, helpful to the development of teaching activities, can help students crack the key points and difficulties in teaching, and enable students to experience the charm of knowledge presented in the process of English classroom learning. It can also make them better understand and master English knowledge, and enhance students' viewing ability.

To sum up, teachers can guide students to understand the function of representation, interaction and composition through the theory of visual grammar, which can help students improve their ability to mine illustrations and their ability to view pictures. In the teaching process, teachers need to use these three functions comprehensively.

Acknowledgements

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