

# An analysis of unit covers in English textbooks based on visual grammar theory

# -- An example of a textbook required for senior high schools

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**Abstract.** With the diversified development of educational technology, teaching resources are gradually enriched. Textbook illustration is becoming a part of teaching resources that cannot be ignored, and it is gradually developing into the "second language" of teaching. In the teaching process, pictures will promote students' understanding of the unit content. Based on the theory of visual grammar, this paper analyzes the theme pages of six units of the senior high school English textbook from the perspectives of representation, interaction and composition respectively, and points out the advantages and disadvantages of unit cover design, in order to the textbook can better serve the classroom.

**Keywords:** Textbook Analysis; Visual Grammar Theory; Unit Cover.

#### 1 Introduction

Since ancient times, every book has had its own cover, symbolizing the identity of each book. Nowadays, with the continuous development of society, the cover design has gradually become diversified. From drawing books in early childhood, to classroom textbooks in middle school, and extra-curricular reading materials in leisure time, the cover of each book contains a lot of elements, such as different colors, fonts of different sizes, images of different shapes, etc., all of these bring readers rich information and help them understand the text content [1].

Cover design often contains a variety of textual resources and non-textual resources. The textual resources are the words and symbols we are family with, while the non-textual resources include videos and images. These resources are captured by the visual system, so they are collectively referred to as visual resources [2]. In addition to the book cover, each unit has its own unit cover in textbooks, and the design of these unit covers is closely related to the theme of each unit. No matter it is text or image, it conveys certain information to readers at different levels. This paper selects six thematic covers from Unit 1 to Unit 6 of the Senior High School English Foreign Study Edition to analyze the influence of visual resources on students' learning content.

## 2 Visual Grammar Theory

In Systemic Functional Linguistics, Halliday (2004) divided language functions into three categories, namely conceptual function, interpersonal function and discourse function [3]. On this basis, Kress & van Leeuwen (2006) proposed the theory of visual grammar [4]. In this theory, visual resources such as images and words are regarded as social symbols to construct meaning, and they have their own grammatical system, and the three functions of language can be applied to both linguistic and non-linguistic systems. Therefore, according to the three pure functions of language, they put forward that symbols such as images and words have three functions, include representation, interaction and composition, which correspond to the three functions of language respectively. The framework of visual grammar is shown in Figure 1.

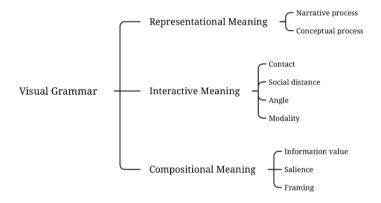


Fig. 1. Visual Grammar

## 3 Literature Review

Since the theory of visual grammar was put forward, many scholars have studied the illustrations and covers of textbooks. Li Ling analyzed the meaning construction of illustration from three aspects: interaction, reproduction and composition in Unit 1 (Teenager life) of Compulsory one of the senior high School English textbook (2019), and discussed how to effectively use illustration teaching while respecting the law of students' physical and mental cognition [5]. Zhang Yi analyzed the illustrations of a textbook for high school English compulsory in Yilin Edition and found that illustrations are closely related to pictures and texts. He believed that illustrations are also part of the teaching content of textbooks, and the content conveyed must be positive, in line with mainstream values and aesthetic needs [6]. At the same time, some scholars have conducted relevant studies on textbook covers. For example, Lan Yuling compared the covers of the 1995 English textbook and the 2001 English textbook and found that with the development of time, the cover designs of the two versions are quite different, and there are also certain differences in the emotions conveyed [7]. Lv Qiaoqiao and Liu

Lichun simultaneously analyzed the cover of the three editions of People's Education Press English Textbooks and the cover of the comprehensive special English textbooks for listening, speaking and audio-visual speaking published by Foreign Research Institution, they found that different types of textbook cover design had different guiding effects on the teaching content of textbooks [1].

Based on the above research, we find that the illustrations in the textbook and the cover of the textbook play an important role in students' learning of the textbook content. In addition to the textbook cover and textbook illustrations, the unit cover of each unit in the textbook also plays an important part in guiding students to learn the content of the unit. The unit cover includes the central theme and central idea of the unit, providing a large amount of information for students, and also potentially providing teachers with certain teaching ideas. Therefore, the design of the unit cover also has various meanings. Based on the theory of visual grammar, this paper analyzes the unit cover from the perspectives of representation, interaction and composition.

## 4 The analysis of the unit cover

The textbook consists of six units, each of which has a big theme. The words, sentences and articles in the unit are closely related to the theme of the unit. The subject context of compulsory One are "Human and Self", "Human and Society" and "Human and Nature", and its content is set up to construct students' knowledge and meaning from different aspects.

### 4.1 Representational Meaning

According to the visual grammar theory, representation includes narrative representation and concept representation, and concept representation includes analysis process, classification process and expression process. Narrative representation also includes the process of speech, psychology, reaction and action, which is mainly expressed by the actions and reactions of participants. The action process and reaction process can also be called transitive or intransitive process. In both processes, human eye movements can form vectors [8].

In the same picture, the action process and the reaction process exist at the same time. For example, in the cover design of Unit 1 (Fig. 2) and Unit 4 (Fig. 5), both the action process and the reaction process exist, and they are dominated by the action process. The first unit is the first lesson for students to enter high school and start their English learning. And the theme of the first unit is - "A new start", which is translated into Chinese as "a new beginning". As we can see from the picture on the cover of this unit, the overall theme is the campus, the background is the school playground and the runway. The picture in front of us is a young boy who has just entered the school, which exactly echoes the theme of this unit. The boy's hands are clenched, one hand is raised high, and the other hand is placed on the chest, the state of the two hands forms a group of diagonal lines, and the half-leaping movement of the feet forms a second group of diagonal lines. The composition of these two sets of vectors forms the action process,

and the little boy is the initiator of the action, but since there is no target, the action process cannot be transmitted [9].

Secondly, the little boy's facial expression shows a smiling state, and the gaze of his eyes forms a certain vector, but the point of his eyes does not have a target, he looks out of the picture frame, so it is an intransitive reaction process [8]. This character presents us with a passionate, lively and passionate high school student, and symbolizes the overall state of contemporary students who love life, are full of ideals and vitality. At the same time, the eyes of the characters convey the object of readers, forming a psychological resonance with readers, conveying positive emotions, and infinite expectations for the new school and new life, in line with the happy and positive image of high school students. With the playground as the background, this also corresponds to the core quality of the new curriculum standards, cultivating students' physical and mental health, improving physical and psychological quality, as well as self-protection ability.

### 4.2 Interactive Meaning

Interaction meaning includes contact, social distance, Angle and modality. Contact includes offering without eye interaction and obtaining with eye interaction. Social distance refers to the intimate relationship with readers, which can be subdivided into four types: personal proximity, personal distance, social proximity and social distance. The closer the distance, the closer the intimacy; Angle refers to the information depicted from different perspectives, including front and side. The modality reflects the degree of authenticity and reproduction of the illustration.

In the fourth unit (Fig. 5), we see that the cover of the unit shows us a row of teenagers sitting on the floor. It is not difficult to see that the six teenagers in the picture are good friends with each other, which is also closely related to the theme of this unit— "Friends Forever". In this picture, the six teenagers do not have eye portrayals, which means no eye contact with the readers. This cover uses a rare depiction from the back, and the angle of the back gives readers more thinking space and deeper imagination space. We don't know the expressions of the six teenagers, they may be laughing happily, or they may be enjoying the comfort of the moment. This is because when readers are reading images, they will automatically bring themselves into the image, in this way they have a common feeling. Then, the angle of the back can better metaphor the theme. Although the depiction of the cover is static, the figure in the picture presents a dynamic process, so we can think that this picture is completed in motion. In the dynamic process, the focus is on the movement of the figure, these teenagers raising their hands high is an obvious action process. This picture shows the happiness and sincerity, expresses the depth and preciousness of friendship. And, the cover image contains six people, which is a typical public distance [8], it indicates that readers and participants are independent from each other, the main purpose of the image is to convey information.

The "modality" we refer to our focus on the "reality" of the image, the reproduction of the "realism" of the image. In this unit cover, the background of the image contains sunlight, lakes and mountains, using high saturation color, therefore it is high sensory

modality. In this image, the setting sun is shining on the side of the mountain, and the dazzling light falls on the six teenagers. Green and yellow are natural colors, symbolizing vitality, growth and youth, it also represents the teenagers. It is the core content of this unit that friends accompany, grow and make progress with each other. This picture expresses the importance of friends in general. It also coincides with the core quality of cultivating students' ability to communicate and cooperate with others and emphasizing the importance of emotional communication and interpersonal interaction in the new curriculum standards.

Unit 3 (Fig. 4) and Unit 5 (Fig. 6) both list a lot of different pictures, which show us three relationships includes a humorous father-son relationship, a good and harmonious family relationship, and the intimate relationship between human and animal from the front and side respectively. In addition, these pictures show a head-up view angle, indicates viewers and participants have an equal relationship [7].

### 4.3 Compositional Meaning

Composition refers to the distribution of the entire picture, including information value, significance level and framing method. In a page, for example, the upper and lower information correspond to different information values. Generally, the upper part is the general ideal information, the lower part is the specific real information, the left side is the already known information, the right side is the new information, and the middle is the most important information. The foreground and background in the image, the arrangement of size, the ratio of tones and the prominence of vividness are called Significance level. Framing refers to whether there is a dividing line between images, words or images and words, which is mainly determined by the image designer's ideas and the meaning that they want to be expressed.

In the six unit covers, they used the same composition. The top is the theme, the bottom is the theme scene, the left side is the import information of this unit, and the right side is the information associated with each unit. In addition, there are obvious dividing lines in the six diagrams, whether it is questionnaires, pictures or charts. For example, on the right side of the first unit (Fig. 2), there is a blank questionnaire related to this unit. The answer to this questionnaire is unknown information that students need to fill out according to their own situation, and the design of the questionnaire can better attract students and arouse their learning interests, and engage students in classroom interaction. There is a clear separation between the questionnaire and the background, which can provide readers with more sense of reality.

These features are more obvious in the cover of Unit 2 (Fig. 3). First of all, the background of the cover of Unit 2 (Fig. 3) is a book that is flipping pages, with various uppercase and lowercase English letters scattered on the top, and there are three charts on the right side, all of which are related to the theme of this unit "Exploring English". These materials all align with the theme. Our teachers can use these three charts in class to help students understand the content. From the image, we can see that the background of the entire image is blue with low color vividness, which generally represents calm and quiet. We often see blue in the design of some websites and medical products, which will make the page concise. The blue in these charts is to reduce readers'

attention to the background of the picture and highlight the content of the chart. At the same time, blue contains the meaning of calm, rational and never give up, which is hoped that students not only in this class, but also in daily life to learn deeper theoretical knowledge, maintain a rational and calm mood, and have the spirit of never give up. Secondly, there is an obvious dividing line between the three charts. The setting of dividing line makes the three charts more independent, so that readers can better distinguish the information of the three charts, avoid confusing the learning ideas, and help readers to learn the course content. This type of design is also well represented in the city view display of Unit 6 (Fig. 7).

## 5 Summary

First, the unit cover should arouse readers' interest in learning. In daily life, we come into contact with countless books, from picture books to story books to textbooks, sometimes the same book has different versions of the cover design, and each cover design usually contains different meaning. It can express the theme of the book and the editor's feelings for the book. We cannot deny that the design of the cover attracts readers' interests in reading, and helps readers to understand the content of the book. The English unit cover is the beginning of a unit. When readers have some doubts about the theme or are not interested in it at the beginning, the color and text of the cover image will give readers a certain impact, making them change their attitude, and further promote their understanding and mastery of the content.

Second, the unit cover should be combined with the learning content. Although unit covers can promote students' learning to a certain extent, not all covers can produce positive effects. Only the unit cover with proper combination of image, text and content can play a certain positive role. If the designer only uses the cover image as a gimmick, and the cover is separated from the actual content, it will play a counterproductive role. In our textbooks, if images are added solely to enhance the fun of the book, causing a mismatch between graphic and content or blurring concepts, it will increase students' doubts and reduce their learning effectiveness. Not only did it lose the significance of the cover, but it also went against our original goal of introducing unit covers in teaching.

Third, teachers should learn to make reasonable use of unit covers. The teacher pays too little attention to the unit cover when preparing the lesson, and then turns the focus to the words and the content of the article. The unit cover of the textbook contains rich information, from images to text. Therefore, teachers should regard the unit cover as an important teaching resource when making classroom design before class, extract the useful information related to the teaching content, and integrate these information into their own teaching. In addition, when conducting classroom teaching, teachers should not only make reasonable use of unit cover for classroom introduction, but also pay attention to the educational significance of this unit [10]. They should use these teaching resources to construct relevant scene, strengthen students' inner emotions, and cultivate students' comprehensive development.

The influencing factors of cover design are diverse, and the ideas expressed by different versions of cover design are different, and the impact they bring varies greatly. A series of questions such as "What elements should be included in a good cover?", "What kind of cover can promote students' learning and development?", "How do the differences between covers arise?", and "the impact about these differences" need to be explored in the future, in order to unit covers can better serve textbooks, teachers and students and further promote the development of teaching [11].

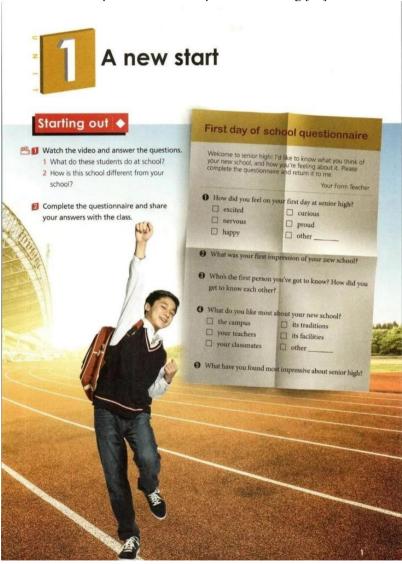


Fig. 2. Unit 1

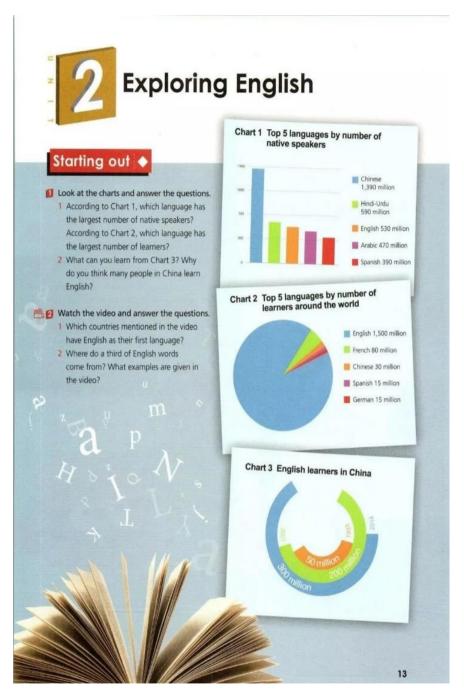


Fig. 3. Unit 2



**Fig. 4.** Unit 3

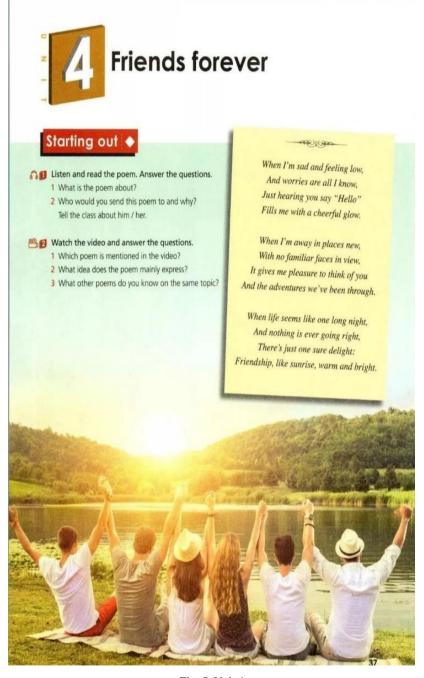


Fig. 5. Unit 4

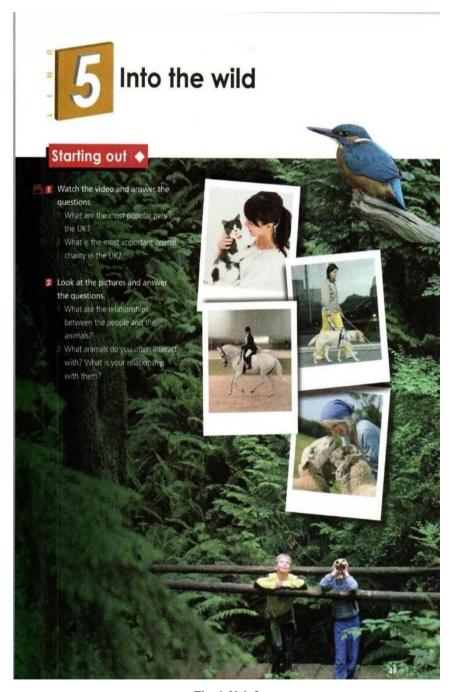


Fig. 6. Unit 5

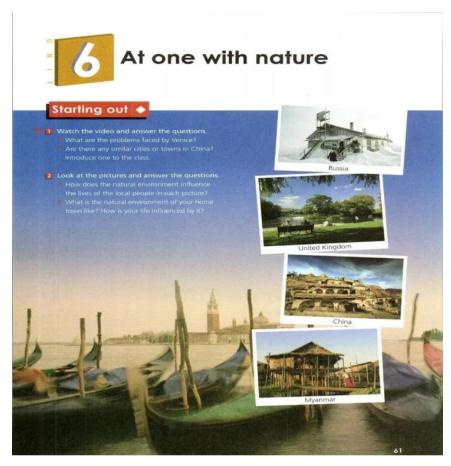


Fig. 7. Unit 6

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