Study on the Cultivation of Cognitive Strategies for Junior High School Students from the Perspective of "Viewing" Ability

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Abstract: The English Curriculum Standards for Compulsory Education (2022 Edition) lists viewing as an equally important skill as listening, speaking, reading, and writing, which is not only in line with the development trend of the digital media era, but also an objective requirement for the cultivation of foreign language talents in the future. At the same time, cognitive strategies help students adopt appropriate learning methods, techniques, and techniques to process language information and improve learning efficiency. The cultivation of cognitive strategies has a direct impact on students' learning. The author will introduce the connotations of cognitive strategies and viewing skills, and explains how to enable students to cultivate cognitive strategies through viewing, that is, to clarify the meaning of the theme, determine teaching objectives, use multimodal resources to create thematic contexts, guide students to cultivate and activate known information during the process of viewing, guide students to transform textual information into information structure diagrams, internalize new knowledge, and return to the theme. In this process, students' cognitive strategies will be cultivated and improved.

Keywords: The Ability of “Viewing”; Cognitive Strategies; Discourse Teaching.

1. Introduction

Humans have been using their eyes to perceive the world since birth. The digital age and high-tech era have added more advanced elements to people’s perception of the world, and the influence of visual culture is everywhere. viewing has become the most important way for us to understand the world. In other words, the ability to view is particularly important. We should not only view in life, but also in learning. By viewing, students can mobilize their other abilities, including cognitive strategies. The academic community has explored how to cultivate students’ cognitive strategies based on teaching English reading and writing, and explored how to cultivate students’ cognitive strategies from the perspectives of reading and writing. Through reading literature, the author intends to discuss how to cultivate students’ cognitive strategies from the perspective of viewing, starting from the ability of viewing in language skills and combining with teaching practice cases.

2. Definition of Core Concepts

2.1. Definition of Cognitive Strategies

Regarding the concept of cognitive strategies, the Curriculum Standards for Compulsory Education (2022 edition) point out that cognitive strategies help students adopt appropriate learning methods, techniques, and techniques to process language information, thereby improving learning efficiency. Rubin (1981) believes that cognitive strategies belong to the category of learning strategies, and he categorizes learning strategies as whether they directly or indirectly affect learning. Among them, cognitive strategies include cognitive activities such as memory, speculation, and deductive reasoning, which have a direct impact on learning. Oxford (1990) also believes that cognitive strategies are directly related to language learning and belong to the category of direct strategies. O'Malley and Chamot (1990) classified learning strategies into cognitive strategies, metacognitive strategies, and social strategies. Cognitive strategies refer to the operational methods used by learners to acquire knowledge and solve problems (Wang, 2002). Several influential experts in the field of language learning strategies have classified learning strategies from different perspectives, but they all include cognitive strategies, which are directly related to language learning materials and are often used in specific learning and teaching activities (Zhang, 2010).

2.2. Definition of Viewing

As one of the newly added skills in the curriculum standard, there is currently limited research on the theoretical and practical aspects of viewing in the academic community, and there is no consensus on the definition of the connotation of viewing. The author found through literature review that one of the important theoretical sources of reading is Visual Literacy. By cultivating visual literacy, learners’ abilities to read, interpret, draw, and communicate with images will be improved (Wu, 2021). The skill of viewing proposed in the English Curriculum Standards for Compulsory Education (2022 Edition) refers to the ability to understand meaning through the use of figures, tables, animations, symbols, and videos in multimodal discourse. On this basis, many researchers have provided different interpretations of the definition of viewing based on different theories, perspectives, and compulsory education English curriculum standards.

2.3. Definition of Visual Literacy

In many countries, viewing is considered a part of visual literacy, and the development of students’ viewing skills cannot be separated from the development of visual literacy. Dubbed as the “father of visual literacy,” Debes (1968) first proposed visual literacy and defined it as “a visual ability that people develop by integrating other sensory experiences while watching.” Debes believed that these visual abilities enable individuals to interact with others, clarifying the
3. The Connotation of Cultivating Cognitive Strategies for Junior High School Students from the Perspective of viewing

Based on the perspective of viewing, cultivating cognitive strategies for junior high school students involves designing activities such as watching videos, pictures, and information structure diagrams while studying the discourse around a certain theme. In the process of viewing, students are taught to cultivate the ability to activate and correlate known information, enhance memory and understanding, be good at taking notes, organizing and summarizing learned content, grasp key and difficult points, and use information structure diagrams to understand themes through visual means.

3.1. Why Cultivate Students’ Cognitive Strategies Through Viewing?

Firstly, through literature review, the author found that many scholars cultivate students’ cognitive strategies through reading and writing teaching. Specifically, these scholars cultivate students’ cognitive strategies through reading and writing teaching skills. The English Curriculum Standards for Compulsory Education (2022 Edition) list the skill of viewing as an equally important skill as listening, speaking, reading, and writing. It can be seen from this that the ability to view is of great importance to students’ development. At the same time, in the English Curriculum Standards for Compulsory Education (2022 Edition), the three levels of cognitive strategies that students need to master are:

1) Activating associations in learning is known;
2) Utilizing different senses to enhance understanding and memory in learning;
3) Be good at grasping key points and taking notes in learning;
4) Organize and summarize the learned content, grasp the key and difficult points;
5) Be good at using information structure diagrams and other methods to understand theme in learning;
6) …

By analyzing the above goals, it can be seen that these goals can be achieved through viewing. If it is only achieved through reading or writing, then the classroom appears stiff and powerless. If appropriate videos, images, and information structure diagrams are added to enable students to achieve the above goals through viewing, it can not only stimulate students’ interest and enthusiasm, but also enrich classroom activities.

3.2. How to Cultivate Students’ Cognitive Strategies Through Viewing?

After discussing why to cultivate students’ cognitive strategies through viewing, the most important thing is how to cultivate students’ cognitive strategies through viewing? viewing, as the name suggests, requires the mobilization of the eye organ. So, it requires the addition of some forms such as images, videos, flow charts, mind maps, etc. Scholar have pointed out that information conversion can also be adopted (Wang, 2006). The information transformation method is the transformation from text to graphics and images, using visual graphics to express complex teaching information. In English classroom teaching, teachers can use information transformation to teach, helping students transform textual content such as discourse into tables, graphics, flow charts, mind maps, visual aids, and other forms to help students acquire, organize, process, and output what they have learned (Yang and Wu, 2019). Students can cultivate cognitive strategies such as understanding themes, grasping key points, and grasping key and difficult points by watching pictures, videos, mind maps, and information structure maps. The specific viewing needs to be set by the teacher according to different lesson types and teaching objectives.

1) Clear goals before viewing

Before viewing, teachers should clarify the goals of cognitive strategies to students. Students may not know what cognitive strategies are, and teachers only need to describe specific goals based on curriculum standards. The purpose of clarifying specific viewing goals to students is to prevent them from blindly viewing.

2) Evaluate after viewing

After the students have completed the corresponding tasks, teachers should use formative evaluation to evaluate the students to check whether they have mastered them. Due to teaching time limitations, teachers can test students by asking questions. If the teacher does not give corresponding evaluations after viewing, students are prone to laziness and not take learning activities seriously.

3.3. Precautions for Cultivating Students’ Cognitive Strategies based on Viewing

1) The viewing activity does not require much. Excessive viewing activities can distract students’ attention and hinder their learning. Teachers only need to design corresponding viewing activities based on their teaching objectives, which is sufficient.

2) The viewing activities need to be precise. Teachers design activities that can cultivate students’ cognitive strategies based on curriculum standards and their own teaching objectives, without the need for the entire class to be viewed by students, which is not conducive to their learning of other knowledges.

4. The Implementation Path of Cultivating Cognitive Strategies for Junior High School Students from the Perspective of viewing

Through reading literature and studying curriculum standards, combined with teaching practice, this study explores how to cultivate students’ cognitive strategies from the perspective of viewing, starting from the language skill of reading.

4.1. To Study the Discourse Thoroughly and Clarify the Thematic Significance

English teaching design based on thematic meaning exploration is to design classroom teaching goals, content,
and activities around a certain theme (Cheng, 2018). The theme is located at the top of the English course content, indicating its importance. The theme not only provides contextual categories for language learning and curriculum education, but also permeates emotional attitudes and values. Teachers should make exploring the meaning of the theme an important part of students’ language learning. While cultivating students’ cognitive strategies, it is also important to not overlook the exploration of thematic meanings. It is important to ensure that in teacher-student interaction and dialogue with the discourse, students not only gain a deep understanding of the discourse and related themes, but also develop their cognitive strategies.

4.2. To Clarify Teaching Direction and Determine Teaching Objectives

In teaching practice, teachers should study the English curriculum standards and explore their requirements for cognitive strategy development. Cognitive strategy, as an extremely important learning strategy, should be cultivated throughout the entire teaching process. Teachers should provide specific teaching aids and cultivate students’ cognitive strategies by allowing them to listen, speak, read, and write during this process. This study mainly focuses on cultivating students’ cognitive strategies through viewing. When determining teaching objectives, teachers consider how to cultivate students’ cognitive strategies through viewing in the teaching process.

4.3. To Develop Teaching Tools Around Visual Literacy

Teaching aids, as the main thing that students view, play a crucial role in the teaching process. In the Dictionary of Education (2018), teaching aids are defined as tools that can be used to assist teaching activities during the teaching process. Traditional ones include textbooks, specimens, models, charts, etc., while modern ones include equipment such as movies, televisions, projectors, sound recordings, videos, computers, etc. At the same time, Dong et al. (2012) defined teaching aids as tangible teaching tools, models, and experimental training equipment that have teaching characteristics and reflect educational ideas, teaching objectives, teaching content, and teaching methods during the teaching process.

Yin (2014) believes that teaching aids can cultivate students’ observation, attention, creativity, and aesthetic abilities. Teachers need to develop students’ thinking abilities through certain skills and intuitive teaching tools that allow them to view.

After setting teaching objectives, teachers should develop corresponding teaching tools based on the teaching objectives, such as pictures, videos, intuitive teaching aids, etc., to enrich classroom activities.

4.4. To Carry Out Teaching Activities and Guide the Activation of Known Knowledge

Lin and Hu (2010) believe that connecting existing knowledge and experience plays an important role in building students’ knowledge and promoting their thinking development. Teachers should create real situations during the introduction process, mobilize students’ existing experience about the topic, help students construct and improve new knowledge structures, and deepen their understanding and understanding of the topic.

Before guiding students to study the text, teachers should fully mobilize students’ enthusiasm and interest during the introduction stage. At this point, students may be tired of interpreting the text, and teachers need to seize this opportunity to fully stimulate students’ passion through corresponding pictures and videos. In this process, teachers need to guide students to learn how to activate the knowledge they have already learned by viewing videos or pictures. In this way, the role of lead-in will be further enhanced.

According to the English Curriculum Standards for Compulsory Education (2022 Edition), “activating and associating knowledge in learning” has become a goal that needs to be achieved at Level 3 of cognitive strategies, indicating its importance. Teachers should design teaching activities that align with the theme, allowing students to activate known knowledge and create connections between new and old knowledge during the process of viewing.

4.5. To Guide the Study of Discourse and Transform Discourse Information

The most important aspect of viewing is to look at information structure diagrams. Teachers should lead students to convert discourse information into information structure diagrams while studying the text. During this process, students can learn to grasp key points and difficulties in learning by viewing information structure diagrams. Wu and Li (2021) point out that using pictures to study is an important way to improve language skills in listening, speaking, reading, writing, and viewing. Images and texts can help alleviate and eliminate learners’ fear and fear of writing. The teacher leads students to deepen their understanding of discourse by utilizing visual means such as videos, animations, picture books, illustrations, and simple strokes of text materials while processing text. While cultivating students’ discourse analysis ability, students’ cognitive strategies will be cultivated.

4.6. To Return to the Theme and Conduct Evaluation and Reflection

After studying the content of the discourse, the teacher should try to make students recall what they saw, read, or wrote in this lesson in a summary manner. Teacher should guide students to return to the topic during the summary process and strengthen the content learned in this lesson.

After the course is completed, teachers should reflect on the teaching design, check whether the teaching objectives have been achieved, and whether students have learned cognitive strategies such as activating the known, grasping key points, taking notes, and grasping key and difficult points in the process of viewing. Teachers should adjust the teaching plan for the next lesson in a timely manner.

5. Teaching Practice of Cultivating Cognitive Strategies for Junior High School Students from the Perspective of viewing

Below, the author will use Unit 4, May You Should Learn to Relax, Volume 2 of English for middle school students in People’s Education Press, as an example, exploring how to cultivate students’ cognitive strategies based on the perspective of viewing in the process of discourse teaching.
5.1. To Study the Discourse Thoroughly and Clarify the Thematic Significance

Ge (2013) believes that in-depth study of discourse is the logical starting point for English reading teaching. The English Curriculum Standards for Compulsory Education (2022 Edition) mention that teachers should study discourse from aspects such as its theme, content, stylistic structure, language characteristics, and author’s perspective. The author will interpret the selected lesson text as follows.

(1) Theme Context
Man and self—positive attitude towards life, physical and mental health

(2) What
The discourse of this lesson mainly focuses on the problems that exist in Chinese and American families as the starting point to explain the high pressure on children. The author first discusses the phenomenon of Chinese students being busy participating in after-school classes due to the pressure of pursuing higher education in the first paragraph. The sentence “However, this doesn’t only happen in China” naturally introduces that there are still such problems in other countries. The Taylor family has three children, and the mother takes her son to basketball training and her daughter to football training every day. The third paragraph unfolds from the perspective of Linda Miller, a mother of three children. This mother pointed out that it is very unfair and crazy for children to always compete with others, and she urged parents not to put too much pressure on their children. The last paragraph is the doctor’s opinion, as she believes that too much pressure is not good for a child’s development.

(3) Why
The author describes the current issue of high academic pressure among many children, as well as the views of mothers and doctors on their children’s high levels of stress. The author wants help readers understand that excessive stress is not suitable for their growth. Students should learn to relax and pursue a happy and healthy lifestyle. At the same time, the author believes that parents should also relax and not give their children too much pressure. The content of this article is closely related to students’ life and has strong practical and educational significance.

(4) How
The topic of this unit is interpersonal communication, with the function of talking about problems and giving advice. Firstly, this unit aims to help students learn how to express the sentence structure of talking about problems, such as “what should I do?” “What should he do?” Secondly, let students learn to express sentences that give advice, such as “why don’t you?” “What about?”

This lesson is an exposition, and the author uses words that indicate inflection points to achieve discourse cohesion in the discourse, such as However and Although. Especially in the first paragraph, “How this does not only happen in China” completes the discourse cohesion well, making the entire text complementary and serving a theme.

5.2. To Clarify Teaching Direction and Determine Teaching Objectives

This lesson belongs to discourse teaching, and after clarifying the direction of exploring the theme meaning, the teaching objectives are set as follows:

(1) Language ability:
- Students can use skimming and scanning strategies to quickly find the main idea of the passage.
- Students can use guessing strategies to guess the meaning of new words: compete, typical, training, stress, continue, comparing and development through contextual connections.
- Students can activate their previous knowledge by viewing pictures.
- Students can learn to use information structure diagrams to summarize discourse information, and can learn the ability to grasp key points and take notes by viewing information structure diagrams.

(2) Cultural awareness:
- Students can learn to relax, relieve stress through legitimate ways when facing stress and learn to keep a balance between life and study.
- Students can understand the theme of this lesson by watching the tree hole created by the teacher.

(3) Thinking capacity:
- Students can identify the cohesive devices in the discourse and judge the relationships between paragraphs.

(4) Learning ability:
- Students can actively collaborate and communicate with classmates in learning activities, and work together to complete learning tasks.

5.3. To Develop Teaching Tools Around Visual Literacy

According to the teaching objectives of this lesson, teachers need to create corresponding teaching aids. In the pre-reading process, the teacher needs to display the corresponding images, allowing students to activate their existing knowledge in their minds by looking at the images.

In while-reading section, the teacher needs to guide students to draw an information structure diagram of the article. The teacher can ask students to draw an information structure diagram on the draft paper themselves, and finally teacher provide its own answers on the courseware. By reading the information structure diagram, students can organize and summarize the learned content, and grasp the key and difficult points.

In the post-reading section, the teacher needs to create a tree hole teaching aid. During this process, students are asked to solve problems in the tree hole in groups, strengthening what has been learned in this lesson. Most importantly, students can deepen their understanding of the theme of this lesson by looking at the tree hole teaching aids.

5.4. To Carry Out Teaching Activities and Guide the Activation of Known Knowledge

After creating teaching aids, teacher need to focus their attention on class. Before class, teacher should create real language scenes, mobilize students’ existing experience in the topic, and help them construct and improve new knowledge structures. This course is about how students should use appropriate methods to reduce their stress. This topic is close to students and can deepen their understanding of the topic.

(1) After greeting the students, the teacher took the opportunity to ask them what did you usually do on weekends? The teacher judges students’ vacation life based on their answers and proposes other things that students can do during the vacation. Next, the teacher displays pictures of the corresponding activities, which are closely related to physical
education, aesthetic education, and labor technology education in the Five Education simultaneously. At the same time, the teacher will also display some pictures of contemporary young people who often must stay up late to study and work and study. Teacher should guide students to consider what they can think of while viewing these pictures.

(2) The teacher asked the students: What activities do you like? Teacher guide students based on their answers. Nowadays, they are no longer primary school students. In daily learning and life, they may worry about their studies and exams. At this point, the teacher needs to tell the students that it is normal to be under pressure, and the students need to use appropriate methods to alleviate their stress. Finally, the teacher guides the students to read the text and attempts to identify any problems encountered by the students in the text.

5.5. To Guide the Study of Discourse and Transform Discourse Information

After lead-in, the teacher should guide students to sort out discourse information, and in this process, cultivate students’ reading ability and cognitive strategies. It should be noted that teachers should guide students to pay attention to the main idea of paragraphs, discourse cohesion, the author’s writing intention, and use context to guess the meaning of words, while also guiding students to develop cognitive strategies.

(1) Firstly, teacher should encourage students to quickly read the entire text and guide them to identify the main idea of the paragraph. Secondly, the teacher guides students to read the first and second paragraphs in detail. Use the question “Is Cathy Taylor for or against after school classes?” to guide students in identifying what Chinese children and Taylor’s children generally do after school. Teacher should first guide students to try drawing their own mind maps. Figure 1 and Figure 2 are the information structure diagram in the study. Teachers should pay attention to providing students with corresponding guidance, such as what aspects to start with when drawing information structure diagrams and what information needs to be included. Finally, teachers should provide their own information structure diagram. From drawing their own information structure diagram to reading the teacher’s information structure diagram, students can learn cognitive strategies such as focusing on notes, enhancing memory and understanding through visual enhancement through reading the information structure diagram.

![Figure 1. After-school activities that Chinese children do](Note: The content in the box is filled out by students under the guidance of the teacher)

![Figure 2. After-school activities that Cathy Taylor children do](Note: The content in the box is filled out by students under the guidance of the teacher)

Next, the teacher leads the students to read the third paragraph in detail. They should answer the following questions:

Q1: Is Linda for or against after-school classes?
Q2: Can you find out some details to support it?

While the students are reading, the teacher should also assign the task of drawing an information structure diagram, just like Figure 3, mainly including how Linda views the phenomenon of after-school tutoring, what causes the students’ stress, and what advice she provides. Students should carefully read the third paragraph with these questions and try to draw an information structure diagram.

![Figure 3. Linda’s attitude towards after-school classes](Note: The content in the box is filled out by students under the guidance of the teacher)

At the end, in the post-reading section, the teacher needs to set up a tree hole talk session, where each student needs to write their own problem on a small piece of paper and have the group solve the problem. This requires the teacher to create a real tree hole teaching aid. Only in this way can students be deeply impressed with the content of this lesson and deepen their understanding of the theme of this lesson. When students complete the post-reading activity, teachers should ask the following two questions to test whether they have a clear understanding of the topic of this lesson.

Q1: What is the theme of this discourse?
Q2: What should you do when you feel stressed?

5.6. To Return to the Theme and Conduct Evaluation and Reflection

First, the teacher will ask two questions:

Q1: Is the doctor for or against after-school classes?
Q2: What is author’ opinion?

Through the students’ answers to these two questions, the teacher needs to guide the students to the author’s viewpoint, which is actually the article title “Maybe You Should Learn to Relax!” Then, the teacher needs to throw the questions to the
students.

Q3: How do we learn to relax?
At the same time, teachers should reproduce the lead-in pictures here. Teachers should tell students that they can relax through the activities in the pictures. This activity not only makes the pictures appear in front of the students again, but also allows them to activate their knowledge by looking at them. More importantly, students’ physical education, aesthetic education, and labor technology education will be cultivated.

Next, teacher need to guide students to summarize and review the entire discourse and the knowledge they have learned. At this point, the teacher can ask students to take out their own information structure diagram and their own notes to retell the article. Figure 4 is the summary about the discourse. During this process, the teacher should once again indicate the theme of this lesson to the students. Teacher should note that before students look at the information structure diagram, teacher should demonstrate that they can master the key and difficult points of this lesson through the information structure diagram.

**Maybe you should learn to relax!**

![Diagram](image)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cathy</th>
<th>Linda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Autonomous learning</strong> (自主学习)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I could find the main idea and learned the structure of this passage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By viewing, I can get the theme of this discourse.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By viewing, I can learn to take notes bygrouping key and difficult points.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperative learning (合作学习)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understood the new words in the passage, such as, complex, typical, training and development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the discussion, I can give advice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the discussion, I can actively discuss with group members.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploratory learning (探究学习)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When facing pressures, I should relax in a right way.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4. Teacher guides students to summarize the discourse**

Secondly, teacher should assign self-evaluation forms to students to test whether they have achieved the goals of this class. Figure 5 is the self-evaluation forms. Teachers should judge whether the teaching plan is completed based on the self-evaluation form filled out by students. The following figure shows a student self-evaluation table, which mainly includes three parts: autonomous learning, cooperative learning, and exploratory learning. The self-learning part mainly tests students’ mastery of discourse content and the cultivation of cognitive strategies. The main part of cooperative learning is whether students actively complete tasks in group activities. Exploratory learning mainly refers to students’ grasp of the theme of this lesson.

**Figure 5. Student Self-evaluation Form**

Finally, after class, teachers should analyze whether the teaching objectives of this class have been achieved based on the students’ reactions in class, the completion of homework, and the filling out of self-evaluation form.

### 6. Conclusion

In the teaching of cognitive strategies based on the perspective of viewing, exploring the theme meaning is the starting point, discourse analysis is the focus, the cultivation of cognitive strategies is the foothold, and the design of viewing activities is the key point. Based on the theme of actively facing life and physical and mental health, the author creates real situations, produces teaching aids, and guides students to start with discourse analysis. Through images, information structure diagrams, and intuitive teaching aids, the author cultivates students’ cognitive strategies, effectively integrating language skills and learning strategies into teaching, and achieving the goal of subject education.

### References


