

# *A Case Study of Precision Teaching Based on the Consistency of “Teaching, Learning and Evaluation”*

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**Abstract:** “Reading and Thinking” is one of the key teaching contents in High school English, including three stages: before-reading, while-reading and post-reading. This process emphasizes students' accurate participation and requires students' real reading experience. However, the actual reading comprehension teaching still focuses on the identification, extraction and understanding of factual information in reading content, and there are not many involved in analysis, evaluation, judgment and interpretation (Cheng Xiaotang, 2017). Thus, this paper takes the "Reading and Thinking" section in senior high school English as an example, discussing the practical application of the consistent precision teaching method of "teaching, learning and evaluation" in reading and thinking, aiming at achieving effective teaching to avoid repetitive and ineffective teaching.

## 1. Introduction

The Blue Book on the Development of Big Data in China's Basic Education (2016-2017) focuses on precision teaching and aims to explore how to achieve precision teaching. As a teaching process, precision teaching needs to pay attention to various factors in the teaching process, that is, teachers' teaching, students' learning and evaluation of teaching and learning. The essence of "teaching, learning and evaluation" is the same, and they jointly point to the development of students' subject core literacy (Wang Qiang & Li Liang, 2019). If "teaching, learning and evaluation" are inconsistent, teaching is doomed to fail even before it is implemented, and the inconsistency of the three elements seriously weakens the effectiveness of classroom teaching (Yu Liping, 2021).

In the teaching practice, teachers' teaching is explicit, while students' learning is implicit. Some teachers still rely on experience to decide what content to teach or deliberately increase the difficulty of teaching, or do not notice the knowledge base of students. According to the survey, how do teachers understand students' learning situation straightforwardly? How do teachers know if “learning” is really happening? For students, how do they achieve knowledge transformation? Can motivated students construct their own knowledge system of what they are learning? How do students understand their full learning trajectory? The solution of these problems requires accurate classroom teaching evaluation. Therefore, how to design and implement Precision teaching based on the consistency of “teaching, learning and evaluation”? This paper is to explore and solve the problem[1-2].

## 2. The Precision teaching Design based on the consistency of “teaching, learning and evaluation”

Under the background of Double Reduction Policy, students still feel that there is a lot of homework while teachers think that students forget knowledge quickly. Whether to carry out new lessons or whether to repeat relevant knowledge teaching, Some teachers still judge it according to previous teaching experience, ignoring students’ recent development area and ignoring students’ current knowledge level. The effect of this method depends heavily on the professional level of teachers, and it is easy to cause subjective bias. However, “precision teaching” and “individuation” are mostly based on students’ homework and test data, which is insufficient to support the decision making process of teaching. Therefore, the whole process dynamic teaching monitoring of the consistency of "teaching, learning and evaluation" can enable teachers to find the problems in the classroom teaching in time and solve the teaching problems accurately. Based on Diagnostic Evaluation before class, Process Evaluation during class, and Reflective Evaluation after class, a dynamic cycle of evaluation and feedback on students' classroom learning is formed.

The precise teaching design based on the consistency of “teaching, learning and evaluation” needs to adopt the idea of reverse design, which first determines the accurate teaching goal (evaluation goal), then build the precise teaching activity and carry out the precise learning activity. This is a virtuous circle of precision teaching design with evaluation as the starting point and ending point of “teaching-feedback-improvement-teaching”, as shown in Figure 1: Precise teaching design based on the consistency of "Teaching, Learning and Evaluation".

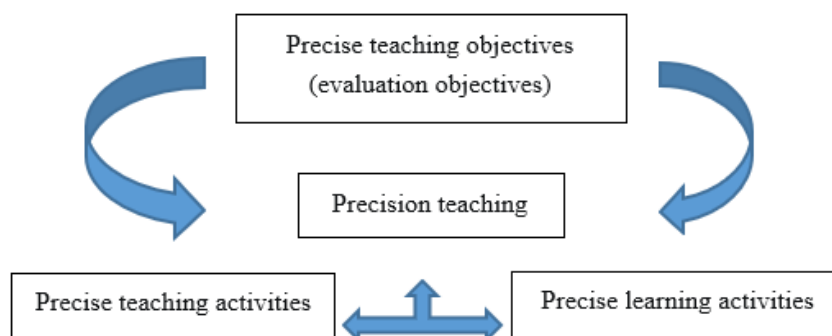


Figure 1: Precise teaching design based on the consistency of "Teaching, Learning and Evaluation"

As shown in the figure, precision teaching based on the consistency of "teaching, learning and evaluation" adopts the idea of reverse design, and the feedback focuses on the achievement of students’ learning goals by diagnosing students’ learning starting point. It integrates diagnostic evaluation and reflective evaluation, and forms a “teaching decision chain” according to teachers’ knowledge about the extent to which groups of students have reached their goals and which still have confusion. Thus, teachers and students rely on real and continuous evaluation in all aspects of the classroom, as well as the evaluation points to the learning goals of the students. If teachers want to know whether students have acquired certain skills, they need to examine the actual level of each student's mastery of skills, and decide whether students need guidance and when they can start new teaching tasks according to the results. In the teaching practice, dynamic adjustments are made according to the teaching design to provide teachers with evidence-based teaching decisions.

## 3. Precise Teaching Practice

In order to cultivate the core quality of high school students’ English subjects and implement the precision teaching consistent with “teaching, learning and evaluation”, the design is question-driven

teaching to achieve students' precision learning. The three levels of "Reading and Thinking": "Pre-reading", "While reading" and "Post-reading" has 10 questions to make students deeply involved in the class, as shown in the Figure 2: Precise Question-driven Design.

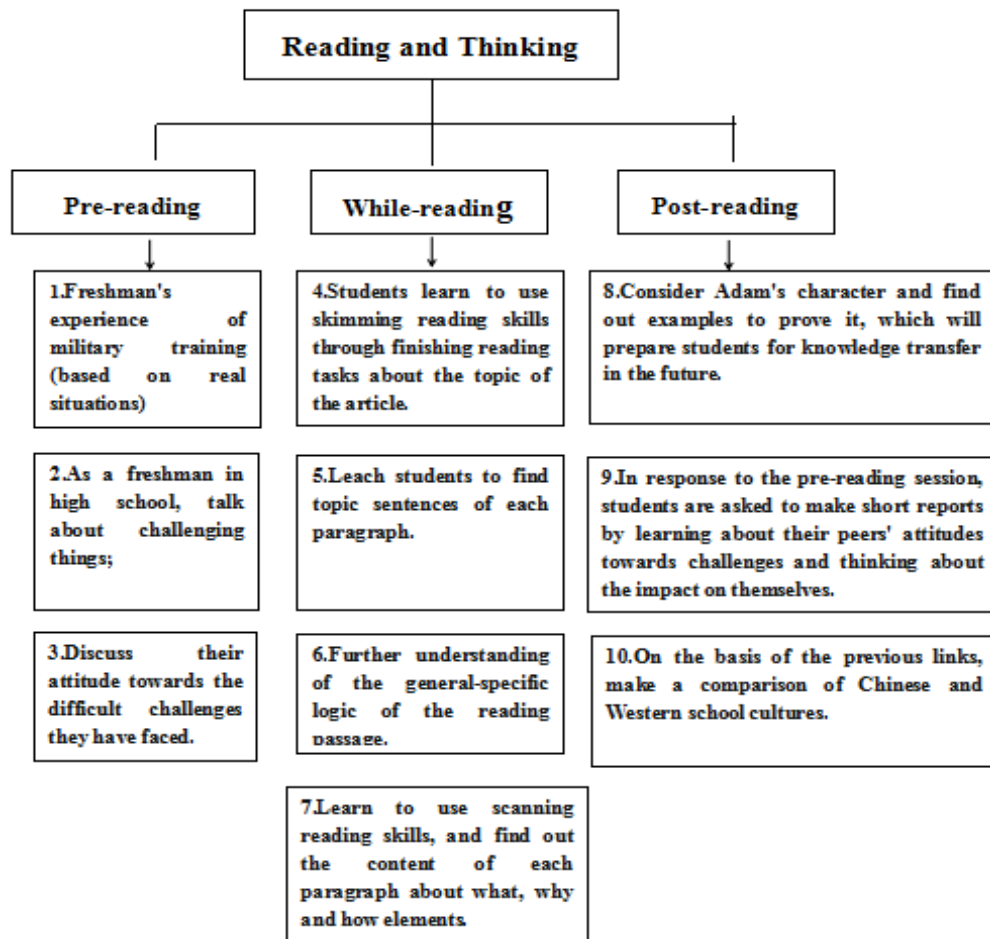


Figure 2: Precise Question-driven Design

Students discuss problems in real situations, achieve precise learning consistent with “teaching, learning and evaluation” through classroom process evaluation around teaching goals, and finally realize the internalization of knowledge transfer[3-4].

#### 4. The Implementation Process of Precision Teaching Based on the Consistency of “teaching, learning and evaluation”

In the teaching process, teachers should determine the contents students should know、 the things they are interested in、 and the activities they can complete. That is, they know the current level of students, and at the same time, through teaching, students will reach the level. Teachers give full play to the leading role in establishing the “zone of proximal development” to promote students’ conscious development. When teachers overestimate the starting point of students’ learning, the high expected teaching goal leads to the increasing of students’ learning difficulty. What’s more, when underestimating the starting point of students’ learning in teaching design, teachers artificially reduce the degree of objectives, resulting in ineffective and inefficient teaching activities. Therefore, teachers should notice the differences between individual student and master the learning level and cognitive level of students so as to ensure the setting of precise teaching goals. In the following, the

author takes “Reading and Thinking” in unit1 Book 1 as an example. Developing the ability of analyzing the structure of the article and Mastering reading skills of how to skim a passage in limited time are the Learning focus. To students, identifying the main ideas by skimming and mastering the reading strategies of the logic of a passage are difficult to them. After knowing the important and difficult points, the teachers can set the learning Objectives precisely.

#### 4.1 Teaching Objectives (Core Literacy)

- ①. Students can retell the school life in their own words;
- ②. Students master the skills of skimming and scanning;
- ③. Students can tell the similarities and differences of school life between China and USA;
- ④. Students can give optimistic solutions to challenges.

In the teaching design, the goal setting of “Reading and Thinking” course is not only based on the curriculum standards and core Literacy, but also emphasizes the starting point of students’ learning and the “zone of proximal development”. It establishes the relationship on the basis of students’ existing knowledge, and determines the learning goal of this course.

#### 4.2 Set Learning Tasks with Precise Question-chains

[Learning Task 1](Pre-reading:3 questions)

- ①. As a freshman, what do you think of military training? (free talk /1minute)
- ②. As a freshman, what are the challenges do you think are difficult for you ? (pair work/2minutes)
- ③. What’s your attitude towards these challenges and what can you learn from these challenges? (team work /2minutes )

Before reading, according to “teaching, learning and evaluation”, in order to arouse students’ interest and thinking, and find out students’ knowledge reserve, three questions are set and promoted layer by layer. First, starting from the real situation, teachers ask the freshmen of senior high school about their experience and feelings of military training; The second question is based on the first question. Besides military training, the challenges are faced with in high school? This was followed by a third question that asked students to discuss their attitude towards the difficult challenges they faced during their time in school. The first three questions are designed to elicit the topic and arouse the curiosity of students. What are the challenges faced by foreign students of the same age?

[Learning Task 2]

(While-reading 4 questions)(Skimming and scanning methods)

- ④. What is the main idea of the passage?
- ⑤. What is the topic sentence of each paragraph?
- ⑥. What is the logic of the passage and how will you prove it? Try to draw a mind map.
- ⑦. What are the detailed information of Adam’s challenges?

In the task of while-reading teaching, 4 questions are set. As a “Reading and Thinking” lesson, the most important thing is to cultivate students’ core quality of learning ability through reading. Ask students to read the article with tasks and questions. By assigning reading tasks, students can learn to use skimming reading skills. By asking students to find the main content of each paragraph, students learn to find topic sentences. After finding the topic sentences, you can further understand the general-specific writing logic of the reading material. After finding out the content of each paragraph about what, why and how, students learn to use scanning reading skills. The design

intention of the second part is to train students to acquire reading skills by completing reading tasks accurately.

[Learning Task 3]

(Post-reading 3 questions))

⑧. What kind of person do you think Adam is? Try to use words to prove it. (Individual work).

⑨. What do you learn from Adams when facing challenges and how will you deal with challenges? (Report)

⑩. What are the similarities and differences between Adam’s school life and your school life? (Role-play)

After completing the reading task, it is necessary to cultivate the thinking quality of students who are brave enough to face challenges and actively seek solutions based on the content of the article, so as to prepare for the knowledge transfer. In response to the pre-reading section, students are asked to make short reports by studying the attitude of their peers when facing challenges and thinking about the impact on themselves. On the basis of the previous links, students studied the challenges Adam faced and compared Chinese and Western school cultures. Through timely evaluation in class, teachers can diagnose the students’ difficulties. The fundamental purpose of reading is to enable students to internalize and transfer knowledge through reading materials.

### 4.3 Precision Teaching Evaluation Based on Goal Achievement Level

To find out the level students have achieved about their learning goals? Students evaluate themselves by comparing the learning objectives of this lesson. Teachers can also predict the degree of students’ achievement of the goal according to the classroom evaluation, so in the teaching evaluation stage, students’ evaluation table is set up in the following Figure 3: Goal Achievement Level.

Figure 3: Goal Achievement Level

Content	Very clear and can use it.	Clear	Not clear
Retell the school life.			
Know the similarities and differences.			
Optimistic solutions to school problems.			
Write a logical general-specific passage.			

### 4.4 Precise Evaluation-based Layering of Assignments

Classroom tasks and homework are often used in the formative assessment of the consistency of teaching, learning and evaluation. More formal tests are used as a means of summative assessment (Anderson, et al. 2001). Therefore, designing homework that is consistent with the objectives of this lesson is also a very important part of teaching, learning, and evaluation.

①. Find more about the Similarities and Differences.

As there is limited time to talk about the life of Chinese and Western high school freshmen only through role-playing activities in class, as an English learner, students need to learn more about the cultural and social information of relevant language countries, and understand the study and life of students of the same age in high schools with different cultures in the process of comparing cultural similarities and differences.

②. According to the content of the text, students need to write a paragraph.

The Assignment intention is that as a freshman in high school, after learning this text, how to internalize knowledge transfer is particularly important. In this paper, students are asked to write an essay about how they formed a responsible attitude to deal with the challenges of their new life in high school and what they have gained.

③. Make a review according to the evaluation.

According to the self-assessment of the content of the class, students are asked to make a relevant review. The assignment intention is that stratified assignment has achieved the role of urging students to improve classroom efficiency[5-6].

## 5. Summary

“Teaching, learning and evaluation” Consistency is concerned with collecting information about learning at the time of learning, in order to improve ongoing teaching and achieve the purpose of improving the quality or quantity of learning (Anderson, 2008). This paper explores the precision teaching case design of “Reading and Thinking” section based on the consistency of “teaching, learning and evaluation”. From a vertical perspective, it is conducive to the formation of standards-based precision teaching design. In other words, the consistency of “teaching, learning and evaluation” involves the curriculum goal to the teaching goal, to the teaching design, and then to the classroom implementation, which is a transformation process. The final implementation to the development of students. From the horizontal point of view, teachers guide students to complete the learning goals, which is a process of adjusting the consistency of “teaching, learning and evaluation”. Teachers give examples and analogies to difficult knowledge points, providing targeted guidance to students with learning difficulties. Students achieve personalized development and improvement through continuous dynamic adjustment of teaching.

In order to promote the implementation of normal classroom teaching of core literacy, in the process of implementing precision teaching, it can achieve true consistency of teacher teaching, student learning and evaluation of learning and teaching, to avoid the triple disengagement of “teaching and learning inconsistency”, “learning and evaluation inconsistency” and “teaching and evaluation inconsistency”, to make teachers’ teaching really happens and students’ learning is truly visible. Teachers should continue to promote consistent and accurate teaching based on “teaching, learning and evaluation”. The consistency research of classroom “teaching, learning and evaluation” can not only convey the degree of consistency between learning objectives, teaching content and learning evaluation, but also convey the influencing factors behind the consistency or inconsistency, such as the problem of teaching goal setting, the problem of teachers’ teaching philosophy, and the problem of students’ learning strategy and attitude. Thus, English teaching practice can be dynamically adjusted according to the actual situation of the consistency of “teaching, learning and evaluation”, which is embodied in the decision-making improvement of teaching design stage, teaching implementation stage and learning evaluation stage.

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