

A Study on the Design of English Language Teaching Activities Based on Deep Learning

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Abstract: Deep learning in English language teaching is expressed in whether students' thinking can follow or even break through the teacher's guidelines, whether language skills can rise to the level of cultural awareness, and whether the system of knowledge can be structured and logicalized. This requires teachers to focus on improving learners' thinking skills and creative abilities in the classroom so that they can become independent learners in the true sense of the word, and through this ability to promote their overall English language proficiency. Achieving deep learning, in terms of thinking development, relies on teachers alternating between a variety of teaching methods; there is no one method to which deep learning is particularly applicable, and no deep learning in particular needs to be eliminated. Different modes of teaching and learning can produce different results in the classroom process, but all are inseparable from certain teaching methods. Achieving deep learning is not a matter of choosing a single teaching method, but of becoming skilled in a certain teaching method. Teachers can only transform themselves from simply imparting knowledge to teaching methods and theories. This requires teachers to make constant breakthroughs in their teaching techniques, and it also requires theorists to remove the biases in their teaching techniques and to conduct more specific, in-depth research. This requires not only that teachers continue to make breakthroughs in teaching techniques, but also that theorists remove their prejudices and conduct more specific and in-depth research on teaching techniques. In response to the above problems, this paper uses three research methods: classroom observation, questionnaire survey and experimental method to address the above problems. Through classroom observation and questionnaire survey, it is found that there are problems in English learning such as inactive learning, insufficient depth of learning, weak transfer and use of knowledge, and the effect of teaching knowledge is hardly proportional to the internalisation effect of learners' absorption. Using deep learning theory as a guide, the teaching design was combined with English teaching materials, and the application of vocabulary teaching design under the guidance of deep learning theory was investigated through experimental research method and classroom observation method. The following conclusions were drawn from the study: Firstly, students' motivation to learn English under the guidance of deep learning theory has increased. Secondly, students' interest in learning English under the guidance of deep learning theory has increased. Third, students' English learning efficiency under the guidance of deep learning theory has improved. Fourthly, students' thinking skills have improved under the guidance of deep

learning theory. All these show that English teaching under the guidance of deep learning theory is effective. Finally, teachers' teaching strategies are proposed with the guidance of deep learning theory.

1. Instruction

In order to meet the challenges of the new era, many countries have carried out educational reforms to develop students' "core literacy". Similarly, the Ministry of Education in China has also proposed that, in the face of the requirement to establish moral education and the educational goal of cultivating core literacy, emphasis should be placed on deep understanding and experience and on enhancing students' learning initiative [1]. With the deepening research on deep learning, the relationship between deep learning and core literacy is becoming clearer and clearer, and it is gradually becoming an important way to cultivate students' core literacy in deep learning.

The construct of "deep learning" in foreign education was first proposed by Marton and Sajlo[2] from Gothenburg University in Sweden. Junco R & Cotton SR[3], renowned educational scholars, have researched and concluded that deep learning may be a way to build a body of knowledge that plays a vital role in developing individual free-thinking skills and may facilitate effective solve some reading and life problems. According to scholar Gao Donghui[4], the rise of deep learning is a result of modern society's response to the times, and thus fostering deep learning skills in young people is increasingly becoming a very important issue in education in all countries. Deep learning allows for the integration, transformation and application of knowledge in a multitude of contexts.

By summing up and summarising the views of the above scholars, it can be concluded that deep learning has an important and constructive role in fostering students' information processing, deep analysis and creative development [5]. If students can gradually move away from shallow learning and move from simple word retelling and recognition to word comprehension and application, the learning effect will be enhanced. If teachers can reasonably combine deep learning theory to design English lesson plans that are suitable for students' learning, they will also be able to achieve good results in teaching English. Under the guidance of deep learning theory, students will be able to build a good foundation in English and gradually realise deep learning in the subject of English.

2. Theoretical Foundation

Deep learning theory has its own deep theoretical foundation, mainly including contextual cognitive theory, distributed cognitive theory, information processing theory and meaningful learning theory. However, the main theoretical foundation of this thesis is Bloom's cognitive goal classification theory [6] and SOLO classification and evaluation principle theory[7].

1) Bloom's classification of cognitive goals

The American psychologist Bloom has proposed the idea of categorising cognitive goals. Bloom has six levels of educational objectives in the cognitive domain [8]. From simple to complex, it is the six levels of knowing, understanding, using, analyzing, synthesizing and assessing, and each level is involved and different.

The first level is knowing, or knowing. Students are made familiar with the information they have learnt, including the process of memorising the methods of particular things, etc. The descriptive verbs available are: narrate, recount and recite.

The second level is to comprehend and understand the meaning of the information learnt, the ability to relate it to something else is weaker and can be represented by descriptive verbs such as: to illustrate and to distinguish.

The third level is application, the ability to apply learned concepts, rules, etc. to new situations, which can be described by descriptive verbs, e.g. calculate, operate, use, etc.

The fourth level is analysis, breaking down the components of the overall material, analysing them and being able to understand their organisation; describable verbs are: break down, explain, etc.

The fifth dimension is synthesis (creation), where the fragmented knowledge learned is integrated and constructed into a body of knowledge, with an emphasis on the development of creative skills, generating a new pattern or structure through creative thinking, which can be described by verbs such as: create, write, etc.

Level 6 is the ability to evaluate and judge material, which includes judging material according to its intrinsic criteria or according to its extrinsic criteria, and can be described by verbs such as: evaluate, compare.

2) The SOLO principle of categorical evaluation

SOLO is: the Structure of the Observed Outcome theory proposed by the Italian educational psychologist John B. Piggs and his colleague Kevin F. Collis [9]. Suggestions for further research on learning outcomes are presented in the book *Assessment of Learning Quality: SOLO Classification Theory (Structure of Observable Learning Outcomes)*, a model for classification assessment [10].

This model of categorical assessment focuses on evaluating students' learning through a corresponding hierarchy, which is more scientific, comprehensive and meaningful; secondly, the experiment has been relevantly educated and well-argued, and is a proven assessment system. SOLO categorical theory is based on Piaget's developmental stage theory, in which the perceptual-motor stage, preoperational stage, concrete operational stage and morphological operational stage, in descending order of children's developmental stages. However, Piaget's theory proved to be a thinking hypothesis, and the real psyche is much more complex than this hypothesis. Piggs developed his own theory based on Piaget's theory [11], in which he argued that the overall cognitive structure of a person is an overarching concept of a theoretical nature, and that its existence cannot be detected by testing. Piggs saw this model as an assumption of cognitive structure. In contrast, the stereotypes of thinking that a person exhibits in response to a particular question are testable and can be tested. This is known as the structure of the observed outcome

With this approach, Piggs divides the outcomes of learning into five main levels [12], as follows.

a. Pre-structure: students avoid questions or do not understand the meaning of the questions, and knowledge is superficial.

b. Single-point structure: students can only grasp one side of the knowledge and answer in a single, arbitrary and unreflective way.

c. Multi-point structure: Students are able to seek more solutions and their answers are more varied.

d. Relational structure: students are able to draw connections between what they have learnt and what they have learnt, as well as internalising their knowledge and finding connections.

e. Level of abstraction: Students can not only analyse the surface phenomenon of a problem, but also see the essence of the problem, so that they can learn by example.

3. Teaching Experiments

3.1 Teaching Design

Take the teaching activities designed in the Compulsory 1: Unit 1 Teenage life Reading and Thinking of the Renminbi version of the high school English textbook as an example to study and analyse the design of English teaching activities based on deep learning. Among the teaching objectives of the unit are: firstly, students can practise prediction and listening through natural conversations about clubs and club activities. Clubs and club activities. Secondly, students can use the expressions they have learned from the conversations to have a conversation about how to choose an appropriate club. Thirdly, students can practise mastering topics and details when listening to conversations. Fourthly, students are encouraged to talk about topics related to campus clubs[13-14].

The following is an example of a lesson plan for Unit 1 Teenage life Reading and Thinking, with the following teaching steps.

1) Before reading

Show students photos of different kinds of school clubs and then ask them to guess and match them to the photos. The names of the clubs to match the photos. Afterwards, the teacher should have a short discussion to find out what the students do in the club. What the students do in the club.

The purpose of this session is to elicit information about the topic through matters that are familiar to the students and to bring out the new with the old, to activate the students' existing knowledge base and to stimulate their interest in the topic, and to pave the way for listening, speaking, reading and writing activities.

2) Reading

Students use skimming skills to quickly skim through the text, get the main idea of the text, sort out the structure of the explanatory text, and build a framework for a chapter map. The activity is designed as shown in the diagram on the following page shown in Figure 1:

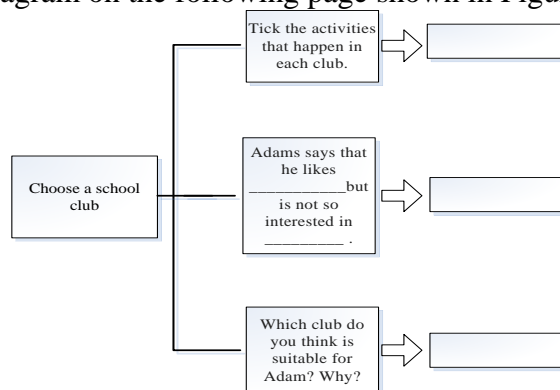


Figure 1: Activity is designed diagram

Students use scanning skills to obtain details of the text in the form of question chains and to refine the details in the diagram above; they learn the features of the text and summarise and summarise the vocabulary and sentence patterns in the text. In this session, students use reading for structure details/languages to construct a mind map and analyse the features of the text in the form of listening, speaking, reading and writing, and to make a lot of input of the target language, which is a rich reserve for the overall output of the unit[15].

3) After reading

Using the mind maps completed during the reading, students are organised into working pairs in small groups to help each other choose a school club. Do some preparatory work before working in pairs. Brainstorm useful vocabulary and expressions for pair work and then encourage each group to make a quick presentation. Through detailed evaluation criteria, students are guided to evaluate each other's groups. There were 40 students in our experimental class, so each group had 8 students, making 5 groups. The rules of the presentation group assessment are shown in Figure 2:

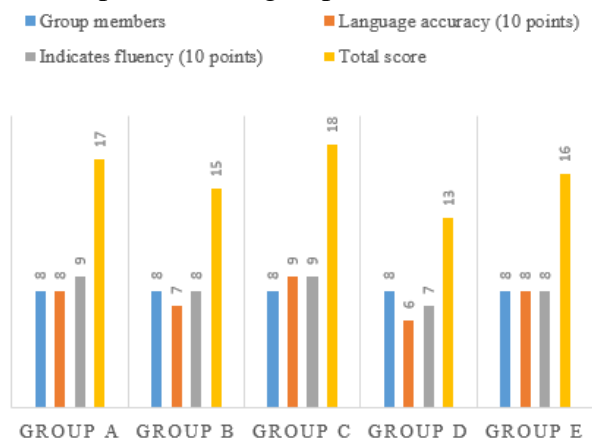


Figure 2: Rules of mutual evaluation of speech groups

This session serves to build on and consolidate reading-in-reading skills and enhance students' reading skills. Supplementary passages and topic extensions provide a wide range of good words and phrases related to the topic for both oral output and written expression. Students are encouraged to communicate and discuss in the target language to improve their overall language skills and to learn to work together.

3.2 Post-lesson Experimental Survey

A post-lesson questionnaire was administered to the students in the experimental class. The questionnaire was based on the learning situation of Unit 1 Teenage life Reading and Thinking, and the paper was analysed and discussed in detail as follows.

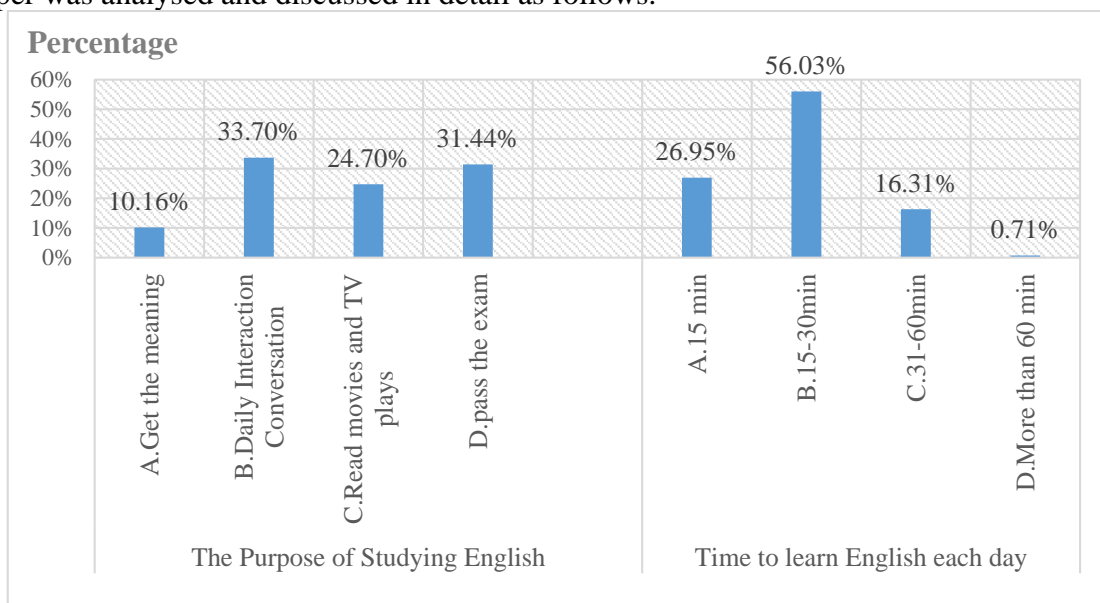


Figure 3: Results of English learning purpose and time

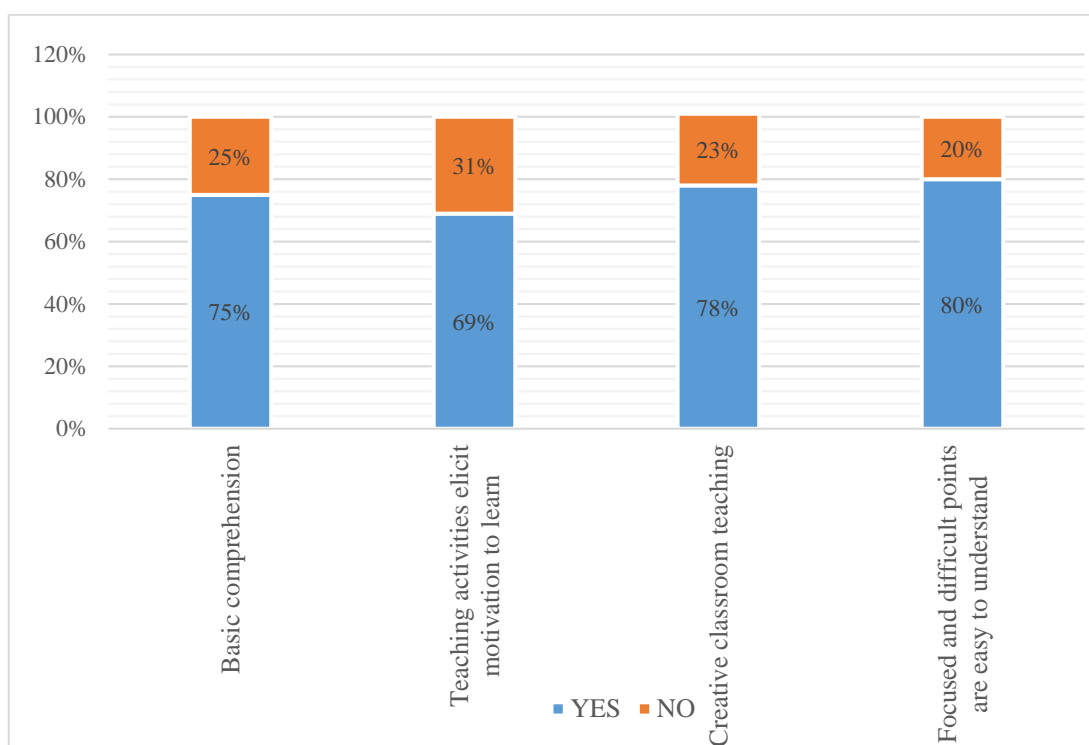


Figure 4: Students' assessment of classroom teaching

3.3 Analysis of Experimental Results

Content B in Figure 3 shows that the highest percentage of students' purposes for learning English are for communicative purposes and for comprehension. In item D, it can be seen that the most direct purpose of learning English is to improve their English language performance, with 31.44% of students, which is only 1.26% lower than item B. This figure shows that more than half of the students believe that they are learning English to improve their English grades and ultimately to pass the entrance examination. This reflects the importance of English and the need for English teaching guided by deep learning theory. Figure 3 also provides a visual representation of the time students devote to learning English. The data shows that the majority of students spend between 15 and 30 minutes a day studying after school, accounting for 56.03% of the time spent. The percentage of time spent on learning English after school is 56.03%, while 26.95% of the time spent is less than 15 minutes. Therefore, the time students spend on English after school is relatively less than 30 minutes, and the lack of time spent on learning can lead to a decrease in learning effectiveness. Figure 4 shows students' post-lesson feedback on Unit 1 Teenage life Reading and Thinking, in which most students understood the content of the lesson and were more engaged and interested in the lesson. Most of them were able to grasp the key points and understand the difficult points when learning. All these data fully illustrate the need and importance of implementing and constructing ELT activity designs based on deep learning.

4. Conclusion

In the context of the new curriculum reform and students' basic quality education, this paper addresses deep learning activities in the English language curriculum. The experiment proves that deep learning can promote the overall development of English teaching and take English teaching to a new stage, providing students with a better way of learning and a better learning environment.

English textbooks are able to access, tap and expand much of the curriculum content. Teachers need to establish the right educational philosophy, constantly expand their own learning pathways and improve their own knowledge base; the organic integration of teachers, students and teaching under the guidance of deep learning cultivates the basic qualities of students and their self-awareness. At the same time, the teaching activities are designed to be taught from the students' perspective; the content of the modules is unified so that they are presented in an easily understandable form, thus achieving the best possible teaching results and thus promoting deep learning.

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