

A Study of English and American Literature Based on The Theory of Multiple Intelligences

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Abstract - This paper firstly combines the theory of multiple intelligences and Anglo American literature teaching characteristics, formulated for the sixth form school stage, to promote autonomous learning and classroom discussion groups, notes, poems, writing papers and role play. Then the author establishes the English and American literature teaching model, and on the basis of the model, designed teaching courseware for class one of grade 2012 in English department of Handan College. Through half a semester of experimental teaching, the students' autonomous learning, poetry writing, thesis writing and color play, students multiple intelligence level were improved. Finally, through performance contrast with normal classes at the end of the semester, a conclusion was drawn: Theory of multiple intelligences teaching method can effectively improve the students' level of English and American literature. The theory of multiple intelligences in education and teaching has a broad prospect of application.

Keywords -- *Multi intelligence theory;The writing of paper;Teaching method design Model;English and American Literature Level*

I. INTRODUCTION

The theory of multiple intelligences is that the level of human intelligence can't be measured by the so-called IQ, but it contains many elements. According to the American Psychological Development Scientist Howard Gardner's multiple intelligence theory in 1983, human intelligence should be classified into eight categories: linguistic intelligence, mathematical logical intelligence, space visual intelligence, bodily kinesthetic intelligence, musical intelligence, interpersonal intelligence, self cognition intelligence, natural cognitive intelligent. The eight intelligence level may be referred to as the intelligence of human beings. For different people, every level of intelligence is different, and varies widely. For example, the world-famous orator Martin Luther King's success is inseparable to the language level of intelligence; Einstein is beyond ordinary logical mathematical intelligence, and so on. The traditional teaching form is too single. Students mainly listen to teachers' interpretation in class, which is not conducive to the development and utilization of students' multiple intelligences. Classroom teaching based on students' multiple intelligences is good to change the previous concepts of learning, enrich students' learning and overall development and promote their learning efficiency. For the application of multi intelligence theory in teaching, many predecessors made a significant contribution, which includes:

In 2010, Yan Li in the paper<based on the theory of multiple intelligences of students' evaluation of the study> broke the tradition of using test scores to evaluate students' idea, established a new evaluation system, highlighted the encirclement of the traditional intelligence theory, proposed that students' evaluation based on the fertility of thought would create more beneficial thinking[1].

In 2012, Ning Yuxia in the paper based on the differences of the theory of multiple intelligences teaching strategy researched the phenomena that traditional classroom teaching ignored the individual differences. And she expressed that it is necessary to implement different teaching strategies in classroom teaching. With multiple intelligence theory as a guide, the preparing lessons, classroom tasks, assignments and their correction, test teaching were redesigned, which made a significant contribution to development of educational undertakings of China[2].

In 2013, Bi Haohao in the paper< The application of multiple intelligence theory in college oral English Teaching > introduced an empirical study based on Multi-intelligence theory teaching. After carrying on a semester of experimental teaching using the theory of multiple intelligences in the experimental class, the experimental class and reference class oral English test at the end of semester showed that the oral English level of the experimental class was generally higher than the reference class. It can be concluded that the teaching based on the theory of multiple intelligences theory is effective [3].

In 2012, Wang Lin in the paper established a chemical courseware design model based on the theory of multiple intelligences. It shows that the multiple intelligence theory can make guidance in high school chemistry teaching [4].

Based on the predecessors' researches combined with the theory of multiple intelligences, and the characteristics of English and American literature teaching, the author formulated six forms of learning, established the English and American literature teaching model, and according to the model the author designed a teaching courseware for class one of grade 2012 in English department of Handan College. Through half a semester of experimental teaching, this thesis comes to a conclusion: Combined with the theory of Multiple Intelligences for teaching, cultured Students

multiple intelligences and last improve English and American literature academic performance.

I. 2. INTRODUCTION OF MULTI INTELLIGENCE THEORY

Multiple intelligence theory is put forward by the American Psychological Development Scientist Howard Gardner in 1983. He studied different people in learning differences, so as to put forward the theory of multiple intelligences. The traditional intelligence theory is that human mathematical logic ability and language ability is the core of human intelligence. While Gardner argued that traditional intelligence certification is too narrow. The level of human intelligence should contain many aspects. Therefore, in 1983 in the book *Frames of Mind*, he proposed that human intelligence was divided into seven categories, and then it was increased to eight categories. The eight categories include the following aspects:

1). Language intelligence (A)

Effective use of written language and verbal language ability;

2). Mathematical logic intelligence (B)

Logical reasoning and scientific analysis of thinking ability;

3). Spatial visual intelligence (C)

Feel the visual space and express;

4). Physical motor intelligence (D)

Use body language to express ideas and feelings and to create or change things with both hands.;

5). Musical intelligence (E)

The sensitivity of tone, melody, rhythm, and tone, and this intelligence performed well in musicians;

6). Interpersonal intelligence (F)

Understanding others, good at dealing with the relationship between themselves and others thinking ability, mainly including four elements: organization ability, negotiation ability, analysis ability, interpersonal contact;

7). Self cognition intelligence (G)

Correct understanding of the evaluation of self, and make the appropriate response ability, and effectively grasp their emotions, motivation, desire, to their own life planning;

8). Natural cognitive intelligence (H)

The ability to identify things in the natural environment, the plant and animal's cognitive resolution, is a prominent manifestation of the biologists.

Therefore, for the teaching of English and American literature, single teaching mode does not apply to all students. For different students, all kinds of intelligent level are different. So for students' diversified development.

Comprehensive utilization of various intelligences in accordance with their aptitude is necessary in teaching, thereby it will improve the overall learning ability of students. The author combined the theory of multiple intelligences with characteristics of the English and American literature, set up six specific training forms in literature teaching. Through the six forms of training, comprehensive utilization of various intelligent students, the students' level will be improved. As shown in Figure 1

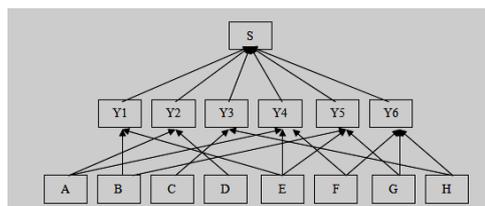


Figure 1. Figure 1 Six classroom forms of the formulation of logical relations diagram

In Figure 1, Y1 ~ y6 were based on eight intelligence to develop the six ways of learning, respectively for autonomous learning performance Y1, classroom group discussion Y2, notes Y3, poems Y4, the writing of the paper Y5 and role play Y6. S indicates the comprehensive score, that is, the students' comprehensive intelligence level. The connecting arrow indicates that the upper layer factor is closely related to the next layer, such as the ability of the language (B) to study the classroom group and the creation of poetry.

II. 3. TEACHING METHOD DESIGN MODEL OF ENGLISH AND AMERICAN LITERATURE BASED ON HOW FAR INTELLIGENT THEORY

Next, this paper combined with the six learning styles formulated above, autonomous learning performance Y1, classroom group discussion Y2, notes Y3, poems Y4, the writing of the paper Y5 and role play Y6, made classroom courseware, and selected class one of grade 2012 in English department of Handan College as the experimental class and class two as the normal class. The method is as follows: in English class of 30 students learning English and American literature, the teacher took traditional teaching methods in the first half semester, and gave five excellent lectures, recorded all aspects of each student through observation and questionnaire method. During the second half semester, the same teacher used the teaching courseware that is based on the theory of multiple intelligences in her literature teaching. At the end of the semester, she dispatched the original five excellent lectures, used the questionnaire survey and observation records of the students of the situation once again. The key of this chapter is to build the principle of courseware design which is based on multi-intelligence theory, and then develop the courseware. The specific design of its courseware is shown below:

A. Design pattern of courseware based on the theory of Multiple Intelligences

Based on the multi-intelligence theory, this paper constructs the curriculum, and absorbs the target mode, the process pattern and the situation pattern. In courseware design, the author has mainly taken the students' independent practice as the basis to achieve the purpose of learning and teaching task. The learning process gives the students' potential a full display, cultivates of students' action intelligence capabilities. Therefore, on the basis of the theory of multiple intelligences structure, this paper built the

multiple intelligent courseware design mode, also known as the project teaching method.

The project teaching method means teachers and students work together to complete the learning task, namely teacher give the learning tasks to the students. According to their own actual situation of autonomous learning, the students collected information, planned, implemented and summarized. Rather than the teacher independently carries on the teaching task, this way of learning mobilizes students' enthusiasm and initiative, creative problem solving,

In project-based learning, students are the center of the learning process; the teacher is only the organizer and coordinator of student learning. In the learning process, the teacher made a plan to supervise students while students obtained professional knowledge, built with their own experience and knowledge system. The process is shown in Figure 2.

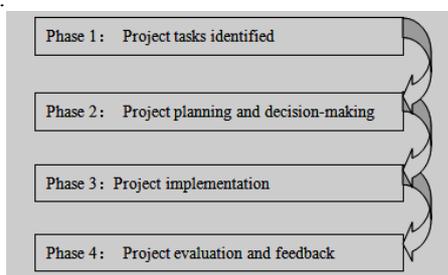


Figure 2. Figure 2 Four stages:

Stage 1 project tasks identified: According to the teaching syllabus of English and American literature, the teaching members of this course discussed, established the project tasks and goals, and collected relevant information about the project (through the network, reference books, and a variety of ways)

Stage 2 project planning and decision making: To deal with the information gathered by the multi-intelligence theory, the teacher developed alternative solutions, drafted courseware design procedures, and eventually got the recognition of all teachers of this course.

Stage 3 project implementation : With access to information, the students were divided into two groups, the students were made to determine their division of labor in the group, to decide the individual or group work is used to complete the tasks of learning, so that students can independently complete the task as well as have the cooperation ability to complete the task.

Stage 4 project evaluation and feedback: The teacher and the students completed the self evaluation and others evaluation, summed up experience, and proposed the improvement of the project teaching method.

B. Design of project based multi-intelligence courseware

It is known that in order to finish the courseware design, information collection, processing, and application are necessary. Based on this, the intelligence is divided into three layers, the first level is for information collection level; in the second level, the collected information is compared, and summarized of reasoned; the three levels is for human

thought and prediction. The multiple intelligences applied to each level are different, and the differences are shown in Table 1:

TABLE I THREE LEVELS OF INTELLIGENT DIFFERENCE

	First level	Second levels	Third levels
Language intelligence:	Questions, reading, lists, narration, writing	Interpretation, report	Narration and writing
Space visual intelligence:	View, note, description, display	Draw a sketch, draw a sketch, chart, chart and draw the cartoon.	Imagination, visualization and simulation
Logic mathematical intelligence:	Record, collect, record, prove	Comparison, classification, sorting, analysis and coding	Evaluation and judgment
Natural observer Intelligence:	Observation, view	Observation, view	Prediction, prediction and connection
Body motion Intelligence:	Preparation, exploration, investigation and visit	Visit, study, test, preview	Construction, performance and experiment
Interpersonal intelligence:	Interaction, grouping, interview and confirmation	Expression, speech, debate, discussion	Expression, coordination, reporting, evaluation, discussion
Intrapersonal intelligence:	Reflection, expression, feedback, diary	Research, self evaluation, interpretation and processing	Introspection, intuition, innovation and creation

According to table I, English and American literature courseware design is combined with the four stages of teaching and three levels of intelligence, and the above mentioned six learning were embedded into the three levels, thus forming the project type multiple intelligent courseware design pattern as shown in Figure 3.

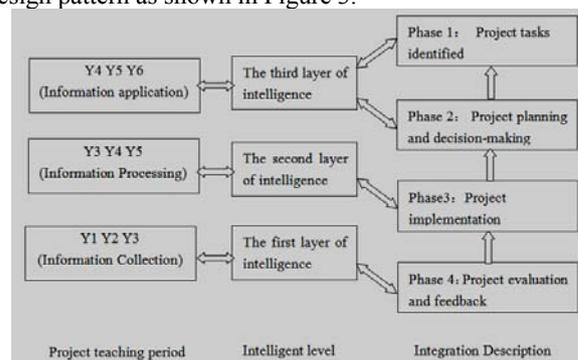


Figure 3. Figure 3 Project based multi-intelligence courseware design pattern chart

Combined with the table I and Figure 3, the English and American literature courseware design is to train students to mobilize all kinds of intelligence, improve the level of English and American literature education. The teacher used the teaching courseware to carry on the experimental training in class one of grade 2012 in English department of Handan College for half a semester. After the experiment, the teacher contrasted the students' situation before and after the

experiment, their performance in all aspects. A contrast analysis is shown in the following part.

III.4. ANALYSIS OF TEACHING RESULTS BASED ON THE FAR INTELLIGENCE THEORY

In order to solve the above mentioned six forms of learning, according to statistical evaluation of the degree of difficulty, the author select three factors from the six as the basis of the experimental class teaching evaluation results: autonomous learning Y1, notes Y3, writing Y5.

A. The change of students' learning ability

For the autonomous learning, this paper focuses on the three indicators to assess, respectively 1. Work completely copy the content of the textbook; 2. Cannot submit homework; 3. During the process of classroom autonomous learning, frequent pauses to search for the right words, even in their native language. Through the questionnaire and observation method, the experimental class before and after the statistical analysis of the situation can be obtained in Table II.

TABLE II IN THE COURSE OF AUTONOMOUS LEARNING, THE FREQUENCY OF THE STUDENTS IS COMPARED TO THE STUDENTS' PROBLEMS

No.	The problem	Before experiment		After the experiment	
		Frequency	Percentage	Frequency	Percentage
1	Totally copy the textbook content	17	45.95%	7	18.92%
2	Failed to submit	11	29.73%	5	13.51%
3	Frequent pauses search for the right words, and even native speakers	19	51.35%	10	27.03%

Combined with table II, get Figure 4 intuitive reaction of the students' learning ability before and after the experiment.

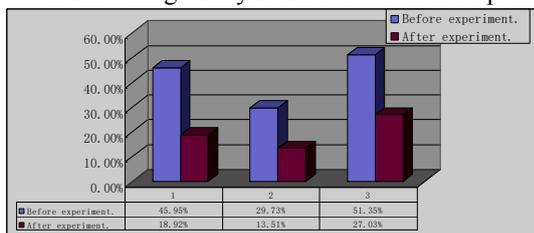


Figure 4. Figure 4 Self learning ability statistics chart

According to table II and Figure 4, it shows before experiments were conducted, 45.95% of students in the process of autonomous learning completely copy the textbook content, 51.35% students frequent pauses to search for the right words, even native. After the experiment, the ratio is greatly decreased, which were reduced to 27.03% and 18.92%. As in Figure 1 and table I, corresponding relationship shows that students' linguistic intelligence has

been significantly improved; before the experiment, 29.73% of the students can not submit homework, after the experiment, the proportion dropped to 13.51%, it indicates that the cooperation ability of students has been improved.

B. Student notes record

Through a comprehensive survey of students' notes in the experimental class, the author got table III. For evaluation of notes, and teaching in the education of English and American literature, this paper selects the two efficient and convenient statistical indicators as the way to evaluate the quality of student assessment notes, respectively. Whether completely copy what were written on the blackboard; 2. Whether the record of key points and form as a useful way of review.

TABLE III NOTE RECORD

No.	Question	Before experiment	After the experiment
1	Totally copy what the teacher said.	20	7
2	Record key points and form a useful review form	3	14

Combined table 3 can obtain Figure 5

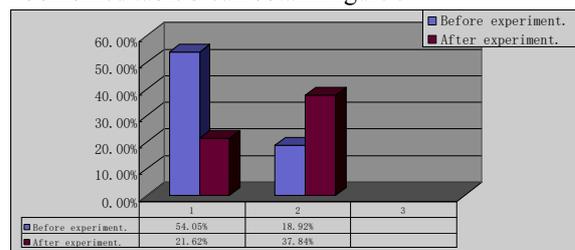


Figure 5. Figure 5 Student notes record bar chart

Figure 5 and table III shows that before the experiment 54.05% of the students directly copied the blackboard for the notes, only 18.92% students can record the key points and form effective review. That is to say the students' note taking is not perfect. After the experiment, only 21.62% of the students copy the blackboard for the notes to record the teacher's explanation, and the proportion of students who use of the key points as the effective way to review rose to 37.84%. This change indicates that the students' listening comprehension and shorthand ability are improved significantly.

C. The change of students writing ability

The statistics of students' writing ability is relatively simple. This paper selects six indicators to evaluate students' writing skills, and the results are shown in Table IV.

TABLE IV STUDENTS WRITING SKILLS

No.	Question	Before experiment		After the experiment	
		Number	Percentage	Number	Percentage
1	Improper use of words	11	29.73%	2	5.41%
2	Misuse of	11	29.73%	1	2.70%

	temporal				
3	Spelling mistakes	7	18.92%	1	2.70%
4	Error writing	15	40.54%	7	5.41%
5	Subject-verb agreement	7	18.92%	1	2.70%
6	Chinese English	15	40.54%	4	10.81%

Combined with table 4, Figure 6 can be obtained.

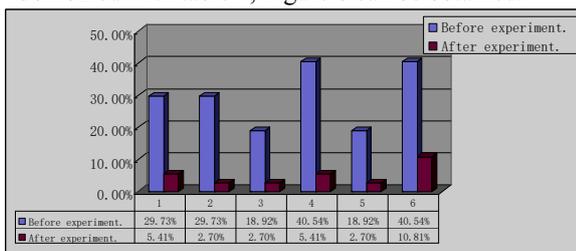


Figure 6. Figure 6 Students writing ability bar chart

According to figure 6 and table 4 it can be seen that the proportion of students misnomer, misuse of tenses, spelling mistakes, writing errors, inconsistent with the subject and predicate, Chinese English errors were respectively 29.73%, 29.73%, 18.92%, 40.54% , 18.92% and 40.54%. And after the experiment, error ratios were decreased to 5.41%, 2.7%, 2.7%, 5.41%, 2.7% and 10.81% respectively. The results showed that the students' errors were significantly decreased. Students' writing skills were significantly improved. Their written communication skills were improved, too. At the end of the semester, the results of the 2 classes of examination (table v) shows that students in class one made a huge progress. It also proves that Multi intelligence theory has great application value in the education of English and American Literature, and the design is reasonable.

TABLE I. TABLE V COMPARISON BETWEEN EXPERIMENTAL CLASS AND ORDINARY CLASS

	Average score	The highest score	Lowest score	The number of fail
English class one	82	95	50	2
English class two	71	93	4	6

IV. CONCLUSION

First of all, the theory of multiple intelligences is used in the teaching model and courseware design of English and American literature. Through experimental analysis of students' behavior in class one of grade 2012 in English department of Handan College and according to the data comparison of students' performance before and after the

experiment, the author eventually includes that the students' learning level in the experimental class are significantly improved. And it is far higher than the ordinary class. The results show that the combination of multiple intelligences theory, training and the use of the students of multiple intelligences can promote the students' English and American literature academic performance.

The theory of multiple intelligences indicates that human level intelligence contains a variety of factors. It has a broad application prospect in education and teaching. The achievement got in English and American literature teaching can inspire other teachers to explore further and they will apply the theory of multiple intelligences in more disciplines of education. Thus the level of education in China will be comprehensively promoted.

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