



The Teaching Design of Online Dialogue in Practice for Large Class Students in Higher Education

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Abstract. This study is to combine an online teaching system with the teaching concept of dialogue teaching, and carry out the curriculum design and practice of college large class teaching. It attempts to reverse the traditional lecturing teaching, solve the existing teaching problems of large class teaching, and extend the teaching concept of dialogue into four dimensions, that is, the dialogue between teachers and students, students and students, teachers and texts, students and texts. It would change the passive, unidirectional and linear thinking of college students, and then make them think rationally about the essence of things and construct their knowledge system. This is the purpose of this study to construct an effective large-class teaching model.

Keywords: Dialogue Teaching · Large Class Teaching · Teaching Design

1 Introduction

It is a challenging educational practice to improve students' passive learning in large class classrooms. Lecturing teaching presents a single communication and interaction, in which teachers provide course content to students. They passively receive information, lack feedback, and have no opportunity to actively participate in the course, thus affecting the learning effect.

This situation is more serious about large classes, and even when teachers interact with each other, they may not have time for everyone to participate. In order to solve this problem, past studies have suggested a variety of approaches including role play, classroom questioning and group discussions.

Based on the COVID-19 digital curriculum, this study carried out online dialogue teaching for 132 sophomore students, using the "Teachermate", "Tencent Conference" and "Wechat" group. This teaching design attempts to provide 132 students in the class of the opportunity and way to actively participate in learning, and also hopes that teachers can check the status of classroom learning through online teaching, and improve the proportion of pre-class preview or classroom learning input.

This is because digital learning platforms can provide instant, individual or group class discussions and automatically record the discussions. This is not only conducive to

the interactive communication with dialogue teaching, but also can promote students to have a deeper understanding and reflection on the course text, and solve the interactive problems of large class teaching.

2 The Definition and Problems of Large Class Teaching

2.1 Definition of Large Class Teaching

Many subjects of higher education are taught in large classes. The definition of “large class” varies from place to place, from school to school, and from course to course. For example, the general education courses of universities in Taiwan, only about 100 students can be classified as large classes. The number of students in language and physical education courses reaches about 40 people, which is considered as a large class. Universities usually refer to courses of more than 60 students in large classes.

Many studies have shown that smaller class sizes can help students learn better. The National Education Association (NEA) once suggested an average of 15 students per class as an ideal class size. However, many countries and regions find it difficult to achieve small class teaching because of limited resources. China has taken a series of measures to eliminate “large classes” with more than 56 students in compulsory education by 2020.

However, in the stage of higher education, the phenomenon of large class size cannot be eliminated. This is because of the large-scale enrollment expansion of universities, and the class size of more than 100 students is common in colleges and universities. In this context, teachers of higher education inevitably face many difficult problems of large class teaching.

2.2 Problems of Large Class Teaching

The problems that may arise out of large class teaching in universities are summarized as follows:

- It is impossible to understand students and take care of each student in the large class. Students feel neglected.
- It is easy about students to be distracted from large classes of teaching online.
- Large class teaching time is limited, teachers can't strengthen the interaction with students.
- It is time-consuming to correct assignments and tests for large classes, so individual feedback can't be given.
- Large class teaching activities are difficult to organize and manage, and the effect is greatly reduced.

3 The Design Concept of Online Dialogue Teaching for Large Classes

The design concept of online teaching for large classes of this study not only tries to solve the problems of large classes mentioned above, but also has disadvantages of oral

teaching. It has been pointed out that in traditional lecturing teaching in universities, students are absent-minded 40% of the time [4].

In the first ten minutes of class, students can still remember 70% of the material taught by the teacher, but in the last ten minutes, they can only remember 20% of the material [3]. This suggests that students who took lecture-based courses remembered only 8% more material than those who did not (Tsay2015). In short, there are five problems with lecturing teaching [2]:

- The longer the class lasts, the worse the students' attention will be.
- It is only suitable for students who like listening to lectures.
- It can only promote the low-level learning of fragmentary knowledge.
- It assumes that all students need the same material and work at the same pace.
- Most of the students' teaching opinions do not like the lecturing method.

Therefore, in order to solve the two teaching problems of lecturing teaching and large class teaching, this study tries to use the teaching concept of Brazilian educator Paulo Freire to design and practice online dialogue teaching, it is to transform Paulo Freire's dialogue teaching idea about four dimensions, that is, the dialogue between teacher and student, student and student, teacher and text, student and text. It could change the passive, one-way, straight-line thinking of college students and makes them think about the nature of things rationally. It constructs a feasible online dialogue teaching model.

4 Teaching Practice of Four Dialogue Dimensions

In the past, the dialogue teaching concept mainly revolves around the level of dialogue between teacher and students. In fact, the scope of dialogue teaching is more than that. The researcher extends the concept of dialogue teaching into the following four dimensions:

4.1 Dialogue Between Teachers and Texts

The "text" is different from the concept of "material", in terms of the teaching goal, the "text" far beyond "material" concept, it ranges from extended to oral, writing, hearing and visual expression type, all books and multimedia relate the teaching subject and student life experience were included in the text.

In practice, in order to enhance students' interests in learning and their attention to teaching topics, multimedia texts are often used in this course in addition to written materials to lead students into teaching situations. Therefore, in the teaching preparation stage, the teacher must have a full dialogue with the text, in order to collect the appropriate text to present to students and trigger their dialogue. In the whole teaching process, the dialogue between teachers and texts is always in a circle of reflection and construction. In particular, "reproduction text" of students is the key dialogue between teachers and texts, which enables teachers to get re-understanding of dialogue teaching.

4.2 Dialogue Between Teachers and Students

Although teachers and students are equal in dialogue teaching, it does not mean that teacher and students are equal. There are differences between teacher and students. Compared with students, teachers have more intellectual knowledge and are more capable of examining self-practice.

In addition to asking questions to guide learners to think deeply about the topic of dialogue in the teaching process, more importantly, the course does not necessarily run through the whole process of questions and answers between teacher and students, but teacher and students participate in cognitive activities together. Teacher conducts teaching activities on the basis of equal relationship to the goal of critical thinking.

4.3 Dialogue Between Students and Texts

The teacher's attitude in selecting and applying teaching materials is to juxtaposition so that students can "de-familiarization" and respond "surprise" to the world they take for granted. In other words, it allows students to reinterpret and view their own lives through "dialogue" with the contents of the text.

Moreover, the dialogue in this dimension attempts to guide students to "reproduce" the text, so that students can reconstruct a set of knowledge system on the teaching topic. In practice, teacher provides students with the reflection, interpretation and discovery of text by "graphic organizer". Each group draws "graphic organizer" in the way of cooperative learning to establish subordinate, hierarchical or causal relationships between new concepts and present their "reproduction text" to present the new knowledge system.

4.4 Dialogue Between Students and Texts

Through the unit activity of "Self Image", the whole class searched for 6 people to form a family. Each family member named the family, drew "family logo" and assigned roles. This activity started a relaxed dialogue between students. Next, each family discusses and votes to choose 2–3 topics in all learning topics.

According to the selected topics by students, teacher collects the text and provides them to discuss and find out the key points which are related the concepts of the topic. Finally, each family made a mind map of the discussion results, and uploaded all the works to the WeChat group immediately. After the whole class discussed the works, online peer evaluation was carried out.

In the above cooperative learning process, the teacher must guide the dialogue between students. Especially when they have different positions, the teacher must clarify the controversial and conflict points in order to strengthen students' expression and analysis. This helps students to link knowledge structures and expand their knowledge systems through a collaborative process of brainstorming.

5 Research Results, Findings and Reflections

5.1 Research Results

Students in the digital age expect to be constantly connected and conversing with others. The vast use of social networks by young people on a daily basis to share information

Table 1. Survey results of this course satisfaction questionnaire.

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
N	152	152	151	152	152	151	152
Missing	0	0	1	0	0	1	0
Mean	4.36	4.40	3.85	2.57	3.53	3.97	3.87
SD	.557	.693	.709	.843	.780	.653	.786
Skew	-.339	-1.092	.001	.341	-.578	-.557	-.177
Kurtosis	.704	1.298	-.529	-.377	.615	1.119	-.546
Min	2	2	2	1	1	2	2
Max	5	5	5	5	5	5	5

about their lives and to follow the activities of others through the Internet illustrates the tendency of the digital generation to interact instantaneously through the Internet. Teaching design should make good use of this feature and use questions to trigger interaction, which is conducive to encouraging students to generate new learning in class and understanding learning status from students’ responses so that teachers can adjust teaching in time [1].

In addition, this course uses the “TeacherMate” system and “Tencent Conference” which provide built-in functions for convenient teaching. Besides check-in, homework, question and answer, and text sharing, it also provides students with another way to ask questions besides raising their hands, which opens the possibility of interaction and dialogue.

In general, people expect their questions to be answered quickly. With the help of technology, it is easier for students to ask questions, and teachers can respond to students’ questions more quickly, so that students’ questions can be answered.

Therefore, these data show that students have a high opinion of this dialogue teaching, which include the questionnaire results of students’ course satisfaction (see Table 1), 2,637 posts recorded by students, assignments, study lists, teachers’ logs and other data.

The questionnaire results are shown in Table 1.

The Mean of item 1 and item 2 is quite high, while the Mean of item 4 and item 5 in the inverse questions is very low from Table 1. It shows that students’ satisfaction with the course is positive. Most of the students think that this course is helpful to study, this course can learn more than the traditional lecture way of only listening to the teacher in class. The students hope that more subjects can be taught in this course to help their study.

5.2 Research Findings

This study found that the digital teaching system combined with the curriculum design of dialogue teaching has extremely positive help and effectiveness for teachers’ teaching and students’ learning in the teaching practice of four dialogue dimensions. For students, the main results are as follows:

- Digital teaching system provides a fast and convenient way of interaction and feedback, and promotes the motivation of students' active participation.
- Family competitions promote better dialogue and cooperation among students.
- The dialogue and interaction between students and teacher extends from online to offline and from pre-class to after-class.
- The dialogue between teachers and students and the dialogue between students and students help students to have a deeper understanding of the concept of the text and expand the original knowledge system.

For teachers, the main results are as follows:

- Teachers can diagnose learning status and provide reference for teaching practice: the system can collect students' answers, assist teachers to find out students' learning problems immediately from the answers, and evaluate the status, effectively clarify myths.
- It can improve the interaction between teachers and students: the objective online teaching system helps teachers to effectively grasp the fairness of interaction, which enables all students to have equal learning opportunities.
- It improves the flow of teaching: the multi-functional online teaching system not only improves students' attention to study, but also saves teaching time and makes the classroom situation interesting without getting out of control.
- Because of the statistical data of the teaching system, teachers' learning evaluation is more effortless and closer to objective facts.

5.3 Research Reflections

In addition to the positive significance of online dialogue teaching for teachers and students, this study also needs to reflect on two key points: first, students' resistance attitude; Second, the scientific and technological ability of teachers.

5.3.1 The Resistance of Some Students

In fact, this teaching practice of dialogue has also suffered resistance from some students. This is because this class of students from the traditional teaching, they have a character of dependence on authority, they will mistakenly think that education is students to listen to the teacher. They are used to following the teacher's instructions to do, to remember, to think, become silent guests in the classroom, so they are not used to dialogue and interaction with others.

This dialogue teaching is no exception. Teachers inevitably encounter two problems: 1. How to change students' silent learning mode? 2. How to improve the depth of students' dialogue? To solve these two problems, the role and guidance of teachers is very important. In addition to perfect curriculum design, it also involves teachers' teaching experience. It is not easy for teachers to practice dialogue teaching perfectly and they must accumulate it slowly.

5.3.2 The Scientific and Technological Abilities of Teachers

Secondly, teachers to make good use of digital teaching system is related to teachers' technological ability, teachers must be skilled in the operation of digital teaching system. This often needs to invest time, but also often occurs in the operation of the failure and frustration, the Chinese old saying: "to do a good job, must first sharpen its tools", teachers improve the teaching system operation ability to improve the teaching practice.

6 Conclusions

Interaction is an important factor in promoting learning in education. In particular, dialogue not only achieves the purpose of transferring knowledge, but also helps students examine the process of understanding, assembling, transforming and applying concepts. Dialogue teaching combined with digital teaching system, digital teaching system provides a convenient space for dialogue, discussion, information exchange, it can promote communication between teachers and students or peers. In this learning environment, students are encouraged to learn actively and actively through dialogue and sharing of knowledge.

Secondly, dialogue teaching combined with digital teaching system, students' learning space naturally extends to before and after class. Teachers can not only take advantage of the various built-in functions of the digital teaching system, such as text transmission and preview for students, but also use the system records and statistical reports to quickly grasp the learning status of students.

The discussion board after class can continue to function as a dialogue. When students are active and involved in learning, teachers can focus on expanding the four dialogue dimensions in classroom teaching. In this way, it can not only solve the problem of large class teaching, but also create higher effectiveness and value of dialogue teaching.

Finally, this study puts forward two reflections: 1. Change some students' habit and attitude of resisting dialogue; 2. Improving teachers' ability to make good use of digital teaching system should be the focus of the continuous development of online dialogue teaching.

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