The Application of Flipped Education in English Classroom Based on Network Information Technology

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ABSTRACT

The large-scale application of the current informatization technology has given technical support to the realization of information-based education. The objective of this current paper is the use of information technology to reform English teaching methods. Therefore, it is proposed to study the application of web-based information technology in the implementation of flipping education in English classrooms. After a brief description of the related concepts and characteristics of the flipping classroom, and English flipped classroom model on the base of network information technology is designed based on the network interactive teaching cloud platform. Based on the mixed research, the data obtained in the teaching experiment are processed and analyzed by SPSS software. It is proved in the following experiments that the model can be effective, and the practical application of the teaching will greatly help the improvement of students' English proficiency. Therefore, the application of realizing flipped education in English classroom based on network information technology is proposed.

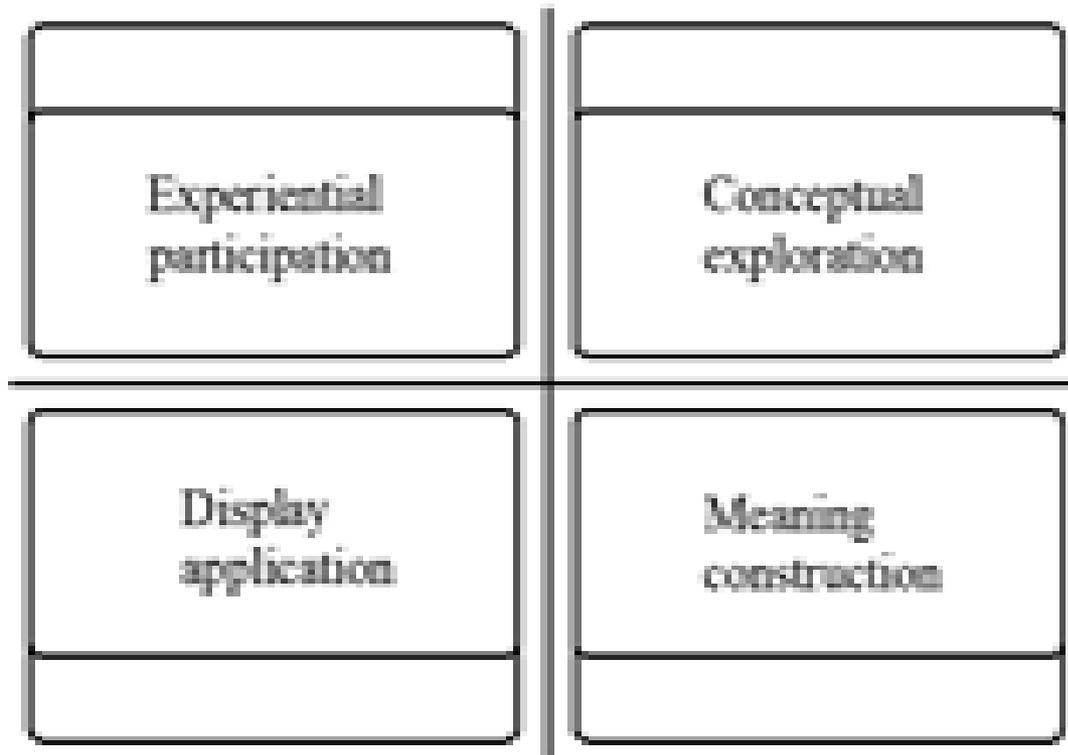**Key words:** Informatization, Network, English, Classroom Flipping.

❖ Since entering the 21st century, the development of information technology has becoming faster and faster. This kind of development not only has its own level higher and higher, but also has a wider range of applications. It also has a revolutionary impact on all fields of information technology application, and the field of education is naturally among them(Dolenc et al., 2015).

❖ online learning and other teaching methods based on information technology have been developed on a large scale (Lakmal Abeysekera & Phillip Dawson, 2014).

❖ Therefore, countries around the world are actively responding to the educational revolution brought about by information technology(Budiharto et al., 2017).

❖ In the information age, the communication of global society becomes more and more frequent and simpler (Wen,2017).

❖ Therefore, the use of information technology to reform English teaching methods has gradually become the focus of attention of the current social objects, the corresponding research has become more and more common (Chen & Wang, 2016).

- ❖ Flipped Classroom as a new teaching method, its name contains a variety of, such as "Flipped teaching", "Flipped learning".
- ❖ But the meaning is basically the same, all from the English term "flipped class Model" translation (Lai & Hwang, 2016).
- ❖ In general, learning is carried out in the way of imparting knowledge and internalizing knowledge, and the flipped classroom reverses the order of this kind of learning (Betihavas et al., 2016).
- ❖ In the flipped classroom, the students first acquire knowledge through a series of learning materials provided by the teachers, and the classroom becomes a place for interaction and communication between teachers and students and between students, thus completing the internalization of knowledge (Hwang et al., 2015)
- ❖ The teachers are transformed from the original impartor to the instructor, while the students change from the passive acquisition of knowledge to the initiative to acquire knowledge. (Schultz D et al., 2014).
- ❖ After the concept of the inverted classroom has been put forward, different degrees of research on the flip classroom have been carried out by many scholars, and also different models of flip classroom have been put forward(Abeysekera & Dawson, 2014).

METHODOLODY

3.1 The Typical Mode of Flipped Classroom

Experiential participation	Conceptual exploration
Display application	Meaning construction

Fig.1 The typical mode of overturning the classroom

3.2 English Classroom Reversal Design Based on Network Information Technology
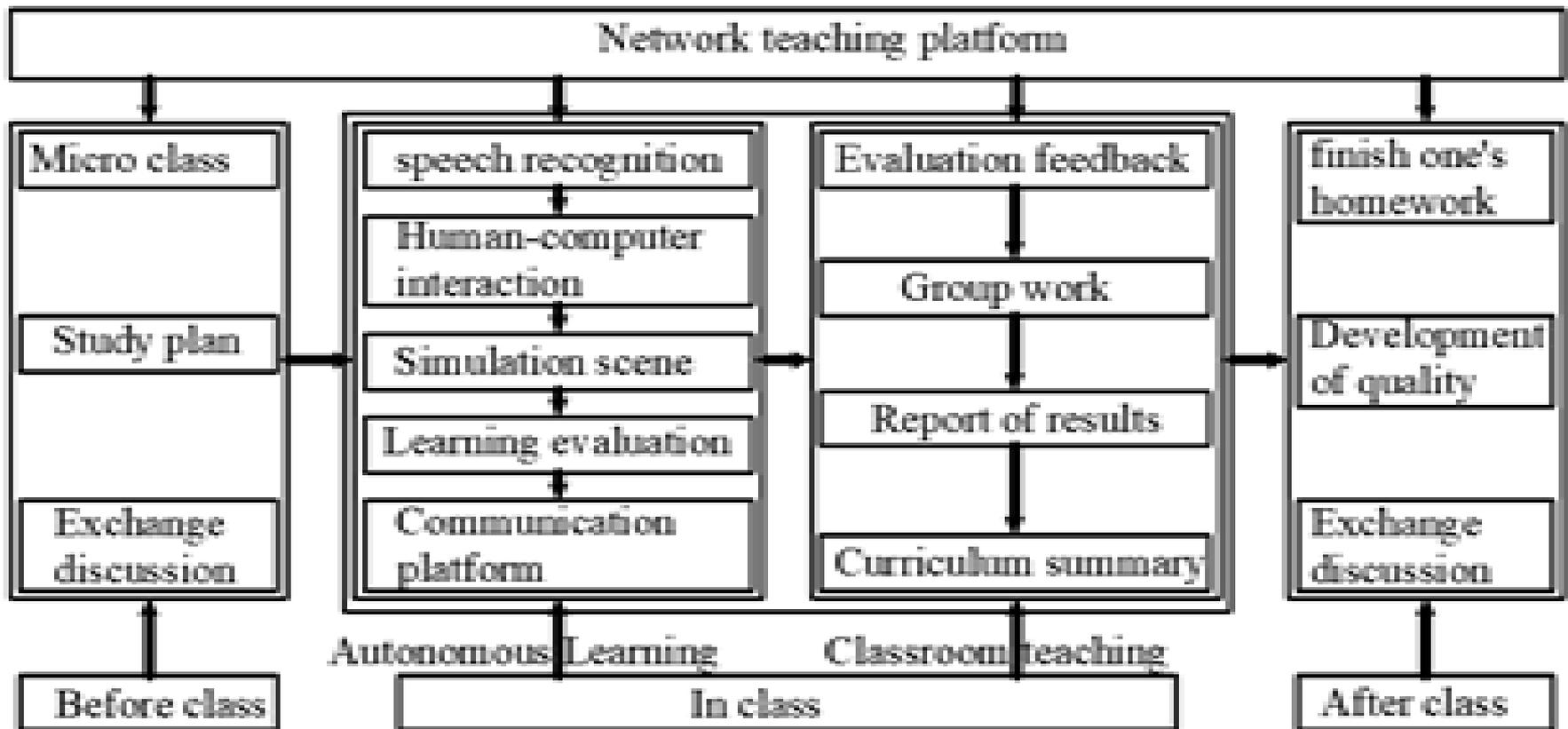

Fig.2 English classroom reversal design based on network information technology

**3.3 The Application of Flipped Education Model of English Classroom Based on Network Information Technology**

Process evaluation	Classification	Specific examination content	Weight
	Classroom teaching	check on work attendance	10%
		Classroom performance and homework	15%
	Learning display	A 8~10 minute display each time	15%
	Online learning	Length of study	5%
		learning effect	20%
		Participation in discussions	5%
Summative evaluation	Examination	written examination	20%
		oral examination	10%

Table.1 English test program in experimental group

The data obtained in the teaching experiment are processed and analyzed by SPSS software. Figure 3 shows the statistical results of the written and oral examinations conducted by the two classes before the commencement of the teaching experiment.

Fig.3 Statistical results of English performance before the beginning of the teaching experiment
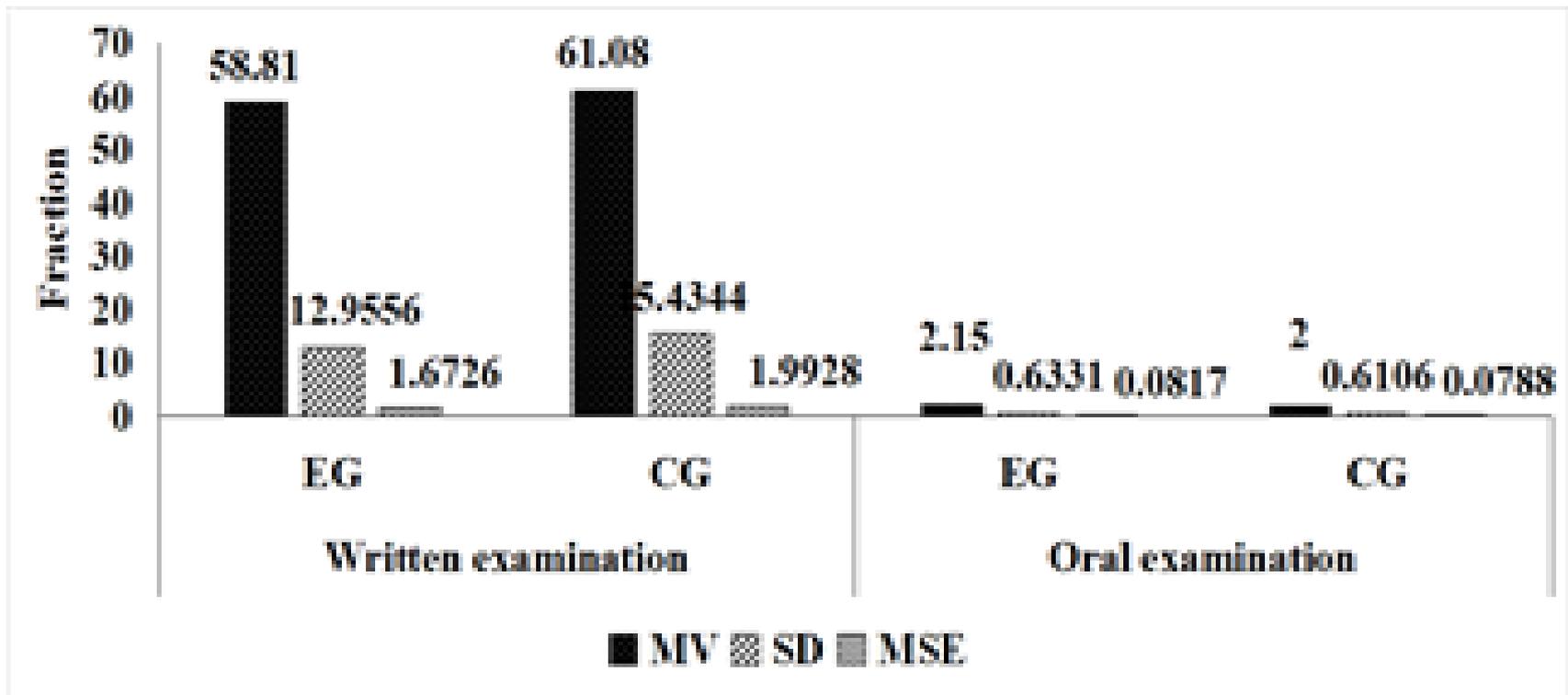
In order to further analyze the actual situation between the two classes before the teaching experiment, an independent sample t-test is used to test the results. The results of the tests are shown in Table 2.

Table.2 Independent sample test of English scores before and after the beginning of the teaching experiment in the experimental group and the control group.

		Levene test of variance equation	
		F	sig.
Written examination	Equality of variance	5.482	0.021
	Variance unequal		
Oral examination	Equality of variance	1.978	0.162
	Variance unequal		
		T test of mean equation	
		t	Sig.
Written examination	Equality of variance	-0.871	0.385
	Variance unequal	-0.871	0.385
Oral examination	Equality of variance	1.321	0.189
	Variance unequal	1.321	0.189

Fig.4 shows the test scores for the written and oral examinations of the experimental group and the control groups after the end of the teaching experiment.

From Figure 4, it can be seen that after one semester of teaching, the test result of the written examination class of the experimental group is 67.07, and the average written examination score of the control group is 60.2.
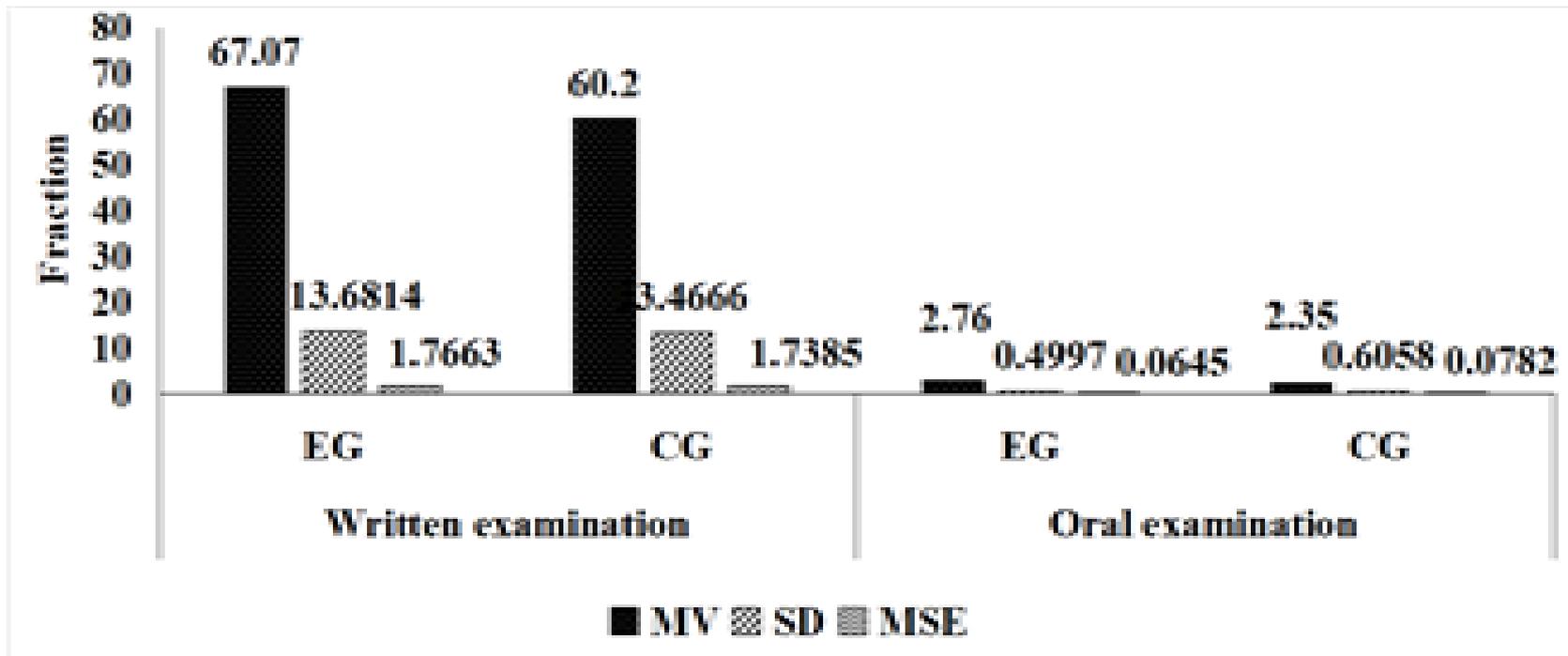
An independent sample t-test is also performed on both classes. The results of the tests are shown in Table 3.

It can be seen from table 3 that the F statistics and Sig. Values of the written examination are respectively 0.038 and 0.845, and the Sig. Values are greater than 0.05.

Levene test of variance equation			
		F	sig.
Written examination	Equality of variance	0.038	0.845
	Variance unequal		
Oral examination	Equality of variance	5.682	0.019
	Variance unequal		
T test of mean equation			
		t	Sig.
Written examination	Equality of variance	2.771	0.007
	Variance unequal	2.771	0.007
Oral examination	Equality of variance	4.110	0.000
	Variance unequal	4.110	0.000

- The rapid development of informatization technology has not only impacted on the concept of education, but also caused a great change in teaching methods.

- Therefore, the application of realizing flipped education in English classroom based on network information technology is proposed.

- After analyzing the level of flipping classroom and network information technology development, an English flipped classroom teaching model based on network information technology is designed, and then a one-month teaching experiment is conducted on the teaching model.

- The experimental results show that the average scores of the written and oral examinations of the control group and the experimental group are basically close before the teaching experiment is started.

- The t-test results of independent samples also indicate that the English level of the two groups is basically close.

- After the teaching experiment, the average scores of the written and oral examinations in the experimental group have been greatly improved, while the improvement of the control group is not obvious.

- The t-test results of independent samples show that the gap between the two is obvious, which indicates that the designed flipped English classroom model can effectively improve the students' English level.

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