

## **Investigation and Research on Flipped Classroom of "History of Chinese Arts and Crafts" Based on WeChat Platform**

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**Abstract.** This study takes the grade 2018 Honghe University students of arts and crafts and product design as the research objects, and introduces flipped classroom teaching into the teaching of history of Chinese arts and crafts. Through the analysis of questionnaires, the author attempts to investigate the acceptance and implementation strategies of flipped classroom teaching.

### **1. Investigation background**

The course "History of Chinese Arts and Crafts" is a very important basic theory course for design majors. However, teaching of the course has always met dilemmas of numerous and jumbled course contents, single form of classroom teaching, lack in student training of analytical thinking and creativity, etc. The only way to solve this dilemma is to change the teaching mode. Flipped classroom as a teaching model of teaching after learning can effectively make up for the shortcomings of traditional teaching.

### **2. Research objectives and methods**

#### 1. Research objectives

Questionnaires were used to investigate students' acceptance of the model, aiming to explore students' attitudes and reactions to flipped classroom, and to provide suggestions and strategies for the application of flipped classrooms in the course History of Chinese Arts and Crafts.

#### 2. Research methods

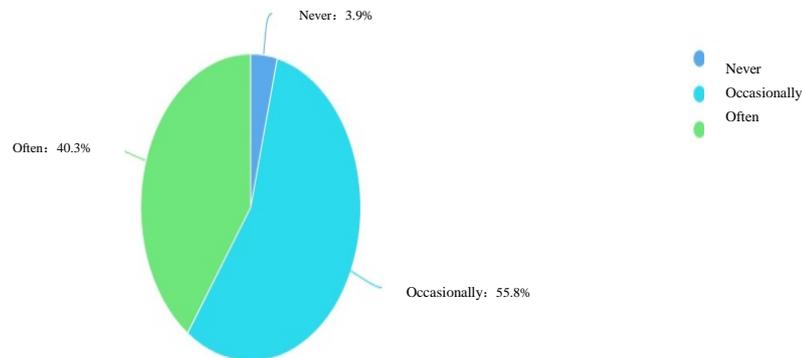
The study mainly adopts the method of questionnaire survey. A total of 77 students from grade 2018 arts and crafts, product design students were surveyed, and 77 valid questionnaires were retrieved. By investigating students' acceptance to flipped classroom, their cognition and attitude towards flipped classroom and its teaching effects are understood. Starting from the four aspects of “student foundation”, “teaching resources”,

“teaching method” and “teaching objective”, the questionnaire designed 20 multiple-choice questions and one essay question. This questionnaire was issued in the first class applying flipped classroom in the course.

### 3. Results and analysis

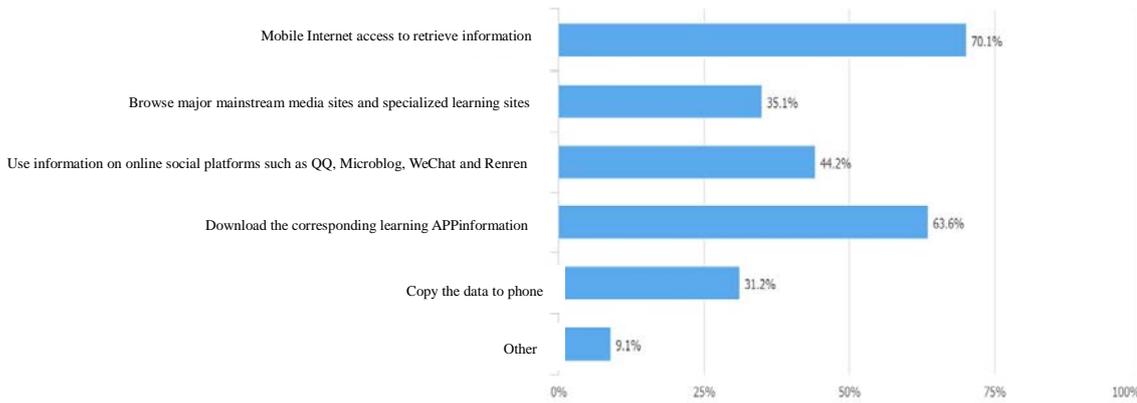
#### 1. "Student foundation" analysis

Flipped classroom requires learners to have certain self-learning ability. In order to understand the learners' knowledge base and ability foundation, so that the curriculum can be designed in a targeted manner, this study investigates from two aspects: self-control and restraint ability, as well as study habits. The uses of mobile communication among learners are respectively for communication, entertainment, learning, etc. For the frequency of learning using mobile portable devices such as mobile phones, 55.8% learners indicate occasional use, and 40.3% learners often use it (Figure 1).



**Figure 1. Frequency of learning using mobile portable devices such as mobile phones**

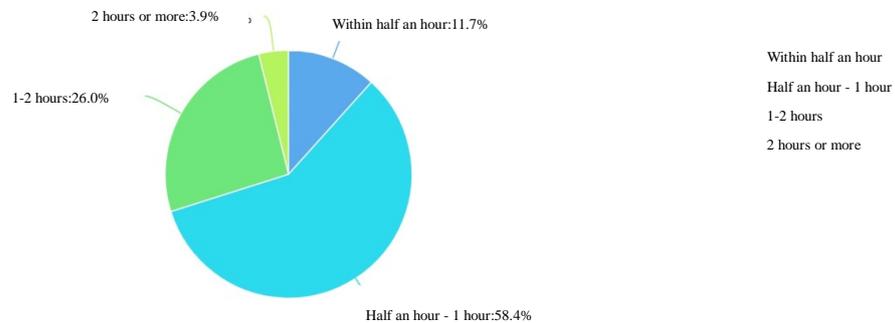
The survey results of learning habits show that 58.4% learners have mobile learning experience, 41.6% have no mobile learning experience. Among the people who have experienced mobile learning, 70.1% of them learn by mobile phone search information, 63.6% of the students learn through the learning APP, students who learn using social platform data account for 44.2%, students who learn by browsing the learning website account for 35.1%, and the students who learn by copying data on the mobile phone account for 31.2% (see Figure 2). In terms of choice of study time, 23.4% of the students take special time to study, 27.3% of the students study in fragment time, and 49.4% of the students have both experiences. It indicates that students have less experience in mobile learning, and most of them still stay in the stage of searching data through the network. Moreover, students' self-discipline is low, suggesting that learner's self-learning ability needs to be improved.



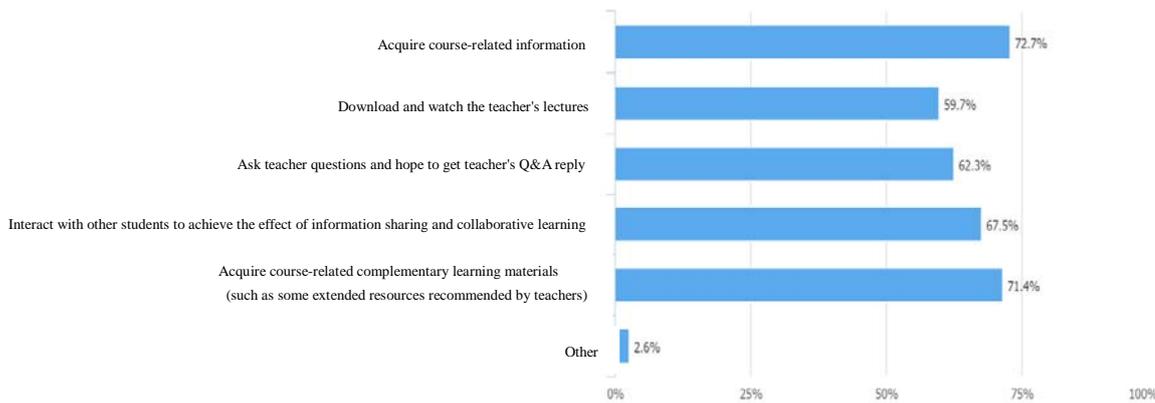
**Figure 2. Status of learning using mobile devices such as mobile phones**

2. Analysis of "teaching resources"

With the development of network technology and information technology, abundant network teaching resources construction has provided convenience for learners to carry out effective learning before class. In order to understand the learners' acceptance and use of teaching resources in flipped classroom, this study investigates from the two aspects: the impact of teaching resources on teaching and the utilization of teaching videos. 58.4% of the learners think that using mobile devices for learning for half an hour- 1 hour every day is appropriate (Figure 3). In terms of learning behavior expected to be fulfilled in mobile learning, 72.7% of the learners hope to obtain course-related information, and 71.4% of the students hope to obtain course-related complementary learning resources (Figure 4). Regarding the length of video used for learning, 41.6% of the learners think that 10-20 minutes is appropriate. The above data shows that teachers can push the course content PPT and combine course-related complementary learning resources, such as 10-20 minute MOOC video, which is more compatible with students' half-hour - one hour mobile learning time.



**Figure 3. Appropriate time for learning using mobile devices such as mobile phones**



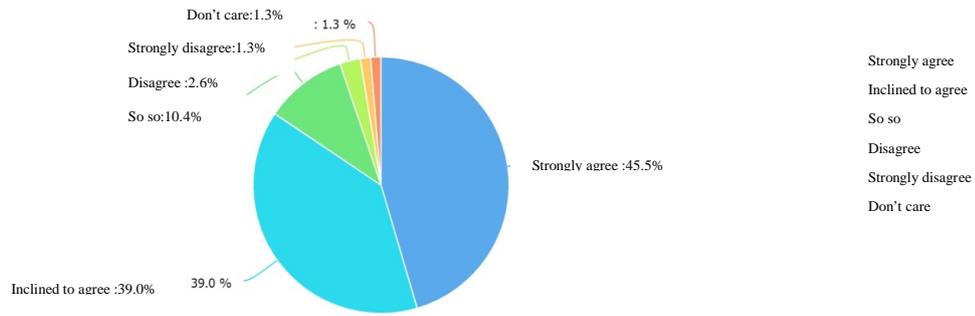
**Figure 4. Learning behaviors expected to be fulfilled in mobile course learning**

### 3. Analysis of "teaching methods"

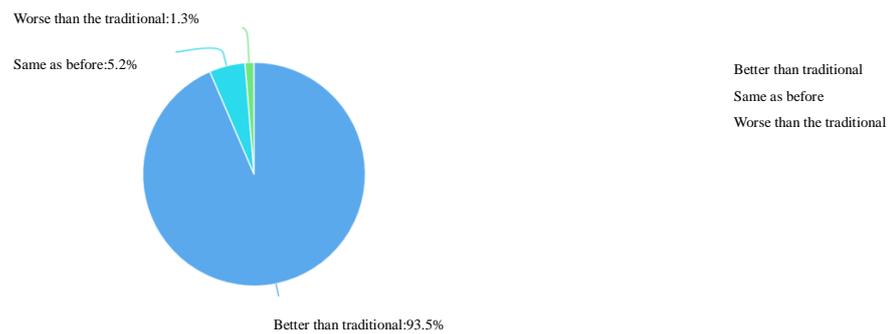
According to the survey on choice of teaching methods, 70% of the learners are more willing to accept interactive teaching mode, and 71.5% of the learners believe that interaction between the teachers and students in the classroom is necessary, while students believing that classroom teacher should act as guider account for 96.1%. The organization of in-class teaching activities is the key making flipped classroom different from the traditional classroom. It can be seen from the data that, the learners expect teachers to change from indoctrinator to guider in the classroom, who should guide students into knowledge internalization through colorful classroom interaction activities. However, this means that pre-class learning is very important, which is a prerequisite for students to participate in classroom activities, improve learning efficiency and quality.

### 4. Analysis of "teaching objectives"

In order to understand the students' acceptance to flipped classroom, the survey was conducted from the perspectives of usefulness of flipped classroom and achievement of teaching objectives. 45.5% and 39% of the learners strongly or are inclined to agree with flipped classroom (Figure 5). 93.5% of the students think that flipped classroom learning mode is superior to the traditional teaching method in terms of self-learning ability, communication ability and learning efficiency (Figure 6). It can be seen that the students have a high degree of acceptance, positive attitude and enthusiastic passion towards flipped classroom.



**Figure 5. Degree of agreement with flipped classroom**



**Figure 6. Is flipped classroom learning mode superior to the traditional teaching method**

#### 4. Conclusions and recommendations

The application of flipped classroom in the course of "History of Chinese Arts and Crafts" means a brand-new learning experience for learners. The survey on the learners' acceptance reveals that: learners prefer to learn by watching the course content PPT before class and combining course-related complementary learning resources (such as short videos of 10-20 minutes). In terms of in-class task, under the teacher's guidance, teacher- student and student-student interaction should be realized through colorful classroom interactive activities so that knowledge can be internalized. According to the survey results, to better apply flipped classroom, it is necessary to start from these aspects:

##### 1. Pre-class preparation

(1) Before class, teachers need to fully analyze the learning situation, formulate a teaching plan according to the teaching objectives, explain the key and difficult points, and clarify the learning methods and steps.

(2) Build a personalized learning environment. Apply for a WeChat public platform account, create a learning WeChat group for "History of Chinese Arts and Crafts", and build an interactive personalized self-learning network environment.

(3) Combining learning objectives, provide rich learning resources, such as materials like classroom teaching videos, picture materials, self-test questions, PPT, etc, and the contents should be simplified and novel. Then, the resources are bound by category to “keyword auto-reply”, an advanced function of the course public platform, so that students can accurately obtain the required resources.

## 2. Classroom teaching

Teachers should organize rich classroom interaction models, such as experiential learning in the forms of experiments and games, and carry out group discussion teaching activities to promote knowledge internalization. Taking classroom organization form of group discussion as an example, students sit by learning groups, then the teacher should determine question for inquiry by combining ability test and problems discussed more in the WeChat group. The teams then have collaborative learning centering on the problems. Finally, the teacher evaluates and summarizes the learning situation of each group, focuses on the learning difficulties of general students so that students can effectively break through the teaching difficulties.

## 5. Conclusion

There are applicability and limitations in any kind of teaching mode. In the specific implementation process of flipped classroom, there are still some very specific problems, like “How do teachers make a good guider, coordinator and supervisor in the flipped classroom?” “How to balance the relationship between flipped classroom and WeChat platform?”, “How to coordinate the relationship between flipped classroom teaching and exam contents?”. These questions require teachers to seriously make reflections and conclusions in real teaching practice.

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