

Higher Vocational Education Research "flipped classroom" Internet Teaching Resources Sharing Mode

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Abstract. Based on the traditional "teacher-centered" teaching mode malpractice proposed for higher vocational education "flipped classroom" Internet Teaching Mode. Play in promoting the rapid development of innovative teaching mode and a variety of teaching methods, the establishment of vocational education teachers in the classroom teaching resources open sharing model, using case-based, heuristic, inquiry-based teaching methods, etc. The overall design of teaching, increasing vocational education student classroom "discussion and dialogue" activities. Studies using different professional teaching methods suitable for different classes according to the teaching objectives, the nature of the course, students age characteristics, teaching environment, teachers personality and other factors, and through an open platform for online classroom activities to achieve the teaching activities. Construction and teaching methods to achieve resource platform will maximize the effectiveness of the teaching process factors, characteristics and classification by teachers, class sizes for students taught, teaching content and teaching environment. Eventually achieve a variety of forms of student-centered learning, to achieve a harmonious coexistence of teaching and learning.

1. The current situation analysis of the academic teachers' teaching philosophy

Nowadays as the talents in teaching field are emerging in endlessly and the flexible teaching places are the feature, the Flipped Classroom and the synthesis of the case-teaching to heuristic-teaching to inquiry-teaching can stimulate the ability of learning initiatively and improve the innovate operation technology, but meanwhile it will bring more requests to teachers. However, the practical classroom teaching mode still stays at the period where there isn't any bravura in innovating the mode, the teachers are based on the subjective factor and teaching materials and ignore the communication between teachers and students about knowledge which may cause the students' lack of concentrate and the change the teaching process into the teachers' simple behavior without the learning subject.

2. The character analysis of several teaching methods and the Flipped Classroom.

See the total situation of the current teachers' group in local colleges, the unreasonable structure mainly reflects in the lack of high-level creation group and talents with international competitiveness and position of subject champion, the quantity insufficient of outstanding talents.

Flipped Classroom is a new teaching mode which flips the classroom teaching thought and changes the role of teachers and students in the traditional teaching mode and realizes the classroom time will be planned and used reasonably. No wonder it will be the best reflect of realizing the self-worth and self-positioning for the students who have good consciousness. Learners can complete the initial learning out of the classroom while rise and answer the questions during the self-learning. To take various methods combined with Flipped Classroom will be useful to get the knowledge and develop personal quality. The characteristic of the heuristic and case teaching is to utilize the actual cases to explain knowledge and realize the drawing inferences about other cases from one instance according to rising problem- analyzing problem and solving problem. The teaching resource platform mode will be built combined with various teaching methods.

2.1 Improve the teachers' teaching thought by diverse teaching methods. To design and increase some communication activities by utilizing the case-based, heuristic method and inquiry method according to the students' learning features. Colleges should enhance the communication between

teachers and students and make sure all the students would join in the seminar as possible as we can and build up the discussion record about questions by grouping them.

The principal state of teachers will be changed by the research of Flipped Classroom and can stimulate the learning motivation. The students can study initiatively instead of passively and the interest of learning will be increased. Meanwhile, teachers can teach students in accordance with their aptitude and take different methods according to the teaching targets, lessons nature, age characteristics, the teaching environment and the teachers' personality, the onsite teaching activities will also be carried out.

2.2 To adjust the proportion of classroom teaching scientifically. To add the case-based teaching on the basis of theoretical teaching which should reach 30%. Teachers can distribute the time of classroom and out of school to find out the teaching methods which fit the students best by analyzing the lesson content and concerned about the cognitive ability combined with the knowledge points.

The difficult problems happened actually would be utilized, for example, the problems about mathematical function in Digital Image Processing, there are some similarities in Anti-Collision Algorithm:

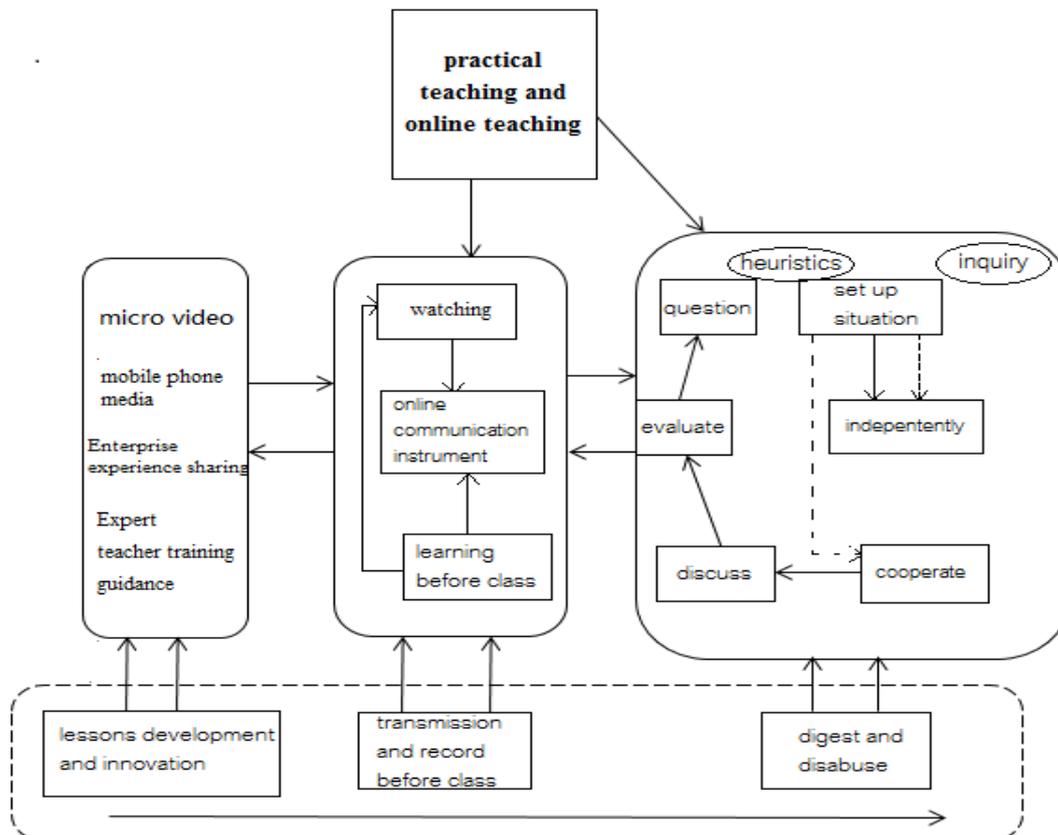
The case is related to the math theory and logical and hard to understand. For example, the Gabor function includes wavelet function and Fourier, the anti-collision algorithm includes the ALOHA algorithm, slotted ALOHA algorithm and dynamic frame slotted ALOHA.

According to the feature of these difficulties, we can summarize a set of teaching thought:

To visualization the mathematical model function by case-based system and dissert the second difficulty aiming at one parameter and finish the similar problem by using heuristic teaching method. Therefore teachers begin to quit the main body and guide students to join. Students can learn to discuss, explain on the platform and raise questions initiatively by the inquiry learning. Each student should take part in by some encouragement way.

The application of Flipped Classroom raise the higher request for the high-level professional teachers' ability and quality. The total research frame model shows below:

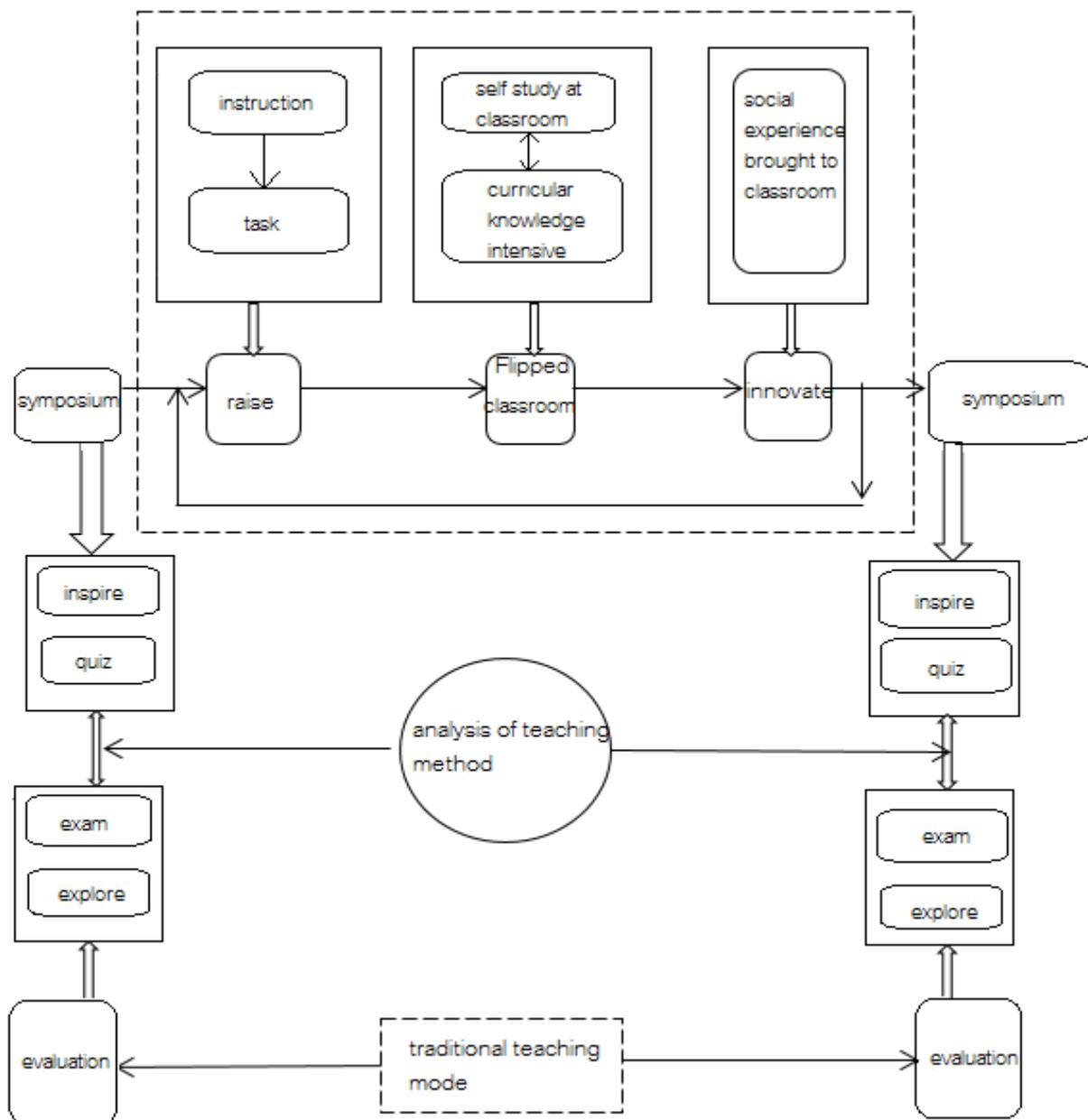
Figure1 Total research frame



2.2.1 Improvement of the teaching guidance theory. The aim of Flipped Classroom is to make sure the students can learn effectively and change the principle state of teachers by reversing the order in teaching. Students will be guided into classroom and raise questions combined with the MOOC on the net and the teaching video. The Flipped Classroom with the prepared questions can be more effective, build up the interactive relation and the harmonious teaching environment and meanwhile, teachers can be given the sense of achievement and the ability of independence, cooperation and introspection will be improved.

2.2.2 The organization process and the achieving measures will be more abundant and improved. Nowadays the necessity of teaching is to make students adapt to the future international development trend. Teachers should provide the method of data integration and the writing ability in the open classroom, what's more, the combination between talents cultivation and employment should also be improved in organization process. The research method and technology route is as below.

Fig 2 the research method and technology route



It will take great effort for the factors of the classmates, the content and environment to realize the construction of resource platform and the teaching method. Flexible teaching method can bring the learning more interaction, controllability and openness under the informational environment.

3. Improve the teaching method with teaching resource platform

3.1 Change the simple answering way into the heuristic and discussing method to build the acknowledge fits the learning subject. Flipped Classroom and subversive teaching are based on the students and leave some time for teachers after raising questions, after guiding, students will be asked what do you think and why or raising some opinions. Teachers should analyse how to change the boring lessons into the pleasant practice lessons by guiding students to learn themselves with the teaching video.

Firstly, teachers should give the different teaching guidance and write a schedule online or offline according to the different students and content. Secondly, teachers can bring the diversified knowledge and teaching method such as Internet and digital media so that students may know the diversified knowledge. Thirdly, teachers must become the decision maker from the manager who can distribute the classroom task and create more chance to cooperate and make group discussion. Finally, teachers can evaluate from the everyday result by the several forms such as the thesis, defense, micro-lesson production and the discussion. The achievement of the examine for reference below.

Table 1 Worklist of examination

content	requirement	The Second kind
5 short design programs	Boys and girl, < 3 people	Take a verbal statement
2 long programs	Boys can match girls voluntary, <5 people	Each participant should state the division.
comments	Each group set up a comment group randomly	Students give the score mutually
remark	Short program takes the application	Long program takes the innovation

3.2 Take laboratory as the other main battlefield. Students should have not only the theoretic learning, but the abilities to solve the practical problems and operating. The examination in practice step should be highlighted. “What kind of students do we want to cultivate on earth?”, when the theory classroom changed to the experiment and practical class, it will be another campaign. Therefore, the questions proposed by students in the practice class will broaden the thought and bring more research.

3.3 Use the social experience as the second class. Colleges should employ the experienced technicians to combine the basic knowledge with the advance technology with the teachers’ efforts and build the long-term cooperation between school and enterprises and sent the students to do some innovate research. Students will think over how to enrich themselves after summer social practice and taking the lectures given by the professional teachers.

4. Conclusion

Colleges can set up a whole set of teaching resource sharing platform by gathering the heuristic, case-based, inquiry learning and the Flipped Classroom. However outstand the students are, teachers will see. Only the teachers cherish and help to guide the students in the correct way and encourage them to explore the new field, will the education be more pure. Education will be back to origin and innovative combined with the Internet+. Knowledge makes people reasonable who can make more progress.

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