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Application of Blending Informational Teaching in the Course of "Kindergarten Music Education"

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Abstract: *The paper firstly analyses the advantages of modern informational teaching over traditional informational teaching, constructs a framework of blending informational teaching for the course of Kindergarten Music Education. Then the paper discusses online and offline blending teaching method, studies blending educational resources based on knowledge types, organizes blending informational teaching platform and related teaching processes, and discusses the mixing of teaching roles based on learning tasks. After that, a case study of blending informational teaching is given. Finally, the teaching data of the past 3 years are used to demonstrate the effectiveness of mixed information teaching.*

Keywords: *Kindergarten Music Education, Informational Teaching, Blending Teaching, Teaching Platform.*

1. Introduction

Early childhood education is the cornerstone of the entire educational engineering system. In early childhood education, preschool teachers are not only knowledge transmitters, but also supporters, collaborators and guides of children's activities, and they play a silent role in the children growth. Therefore, cultivating preschool teachers with solid theory, rich practice, and high moral character is an important task that cannot be ignored in higher education.

With the rapid development of information technology represented by network technology, the teaching reform of higher education has made rapid progress, and information-based teaching methods have been widely used in teaching at all levels. If the informational teaching 1.0 started in 2000 aimed to "lay the foundation and focus on exploration", the informational teaching 2.0 started in 2018 emphasized the integration and innovation of informational teaching [1]. In the "Education Information 2.0 Action Plan" issued by the Ministry of Education in 2018, it was clearly stated that "...fully stimulate the revolutionary impact of information technology on education, promote the renewal of educational concepts, model changes, and system reconstruction..." [2,3].

In the paper, guided by the "Educational Information 2.0 Action Plan", the innovation and practice of the informational teaching for the course of "Kindergarten Music Education" is carried out, and teaching methods blending, teaching resources blending, teaching platform blending and teaching role identity blending are discussed, which satisfies the new needs in the teaching of "Kindergarten Music Education" and promotes the reform and innovation of informational teaching in the new era.

2. Status of "Kindergarten Music Education"

"Kindergarten Music Education" is a compulsory core course for students majoring in pre-school education, which is an important part of the kindergarten series of courses. The course helps pre-school teachers to fully grasp the professional theoretical knowledge related to pre-school children's music education, and improve teachers' ability and literacy of children's music education practice. The course knowledge system is shown in Figure 1, and it consists of four units and a total of 32 hours. It is characterized by equal emphasis on theory and practice.

The course is taught by nearly 600 students in Changsha Normal University per year, and nearly 2,000 hours of teaching tasks after class. Such a heavy teaching task, if advanced teaching methods are not adopted, it is difficult to guarantee the teaching effect.

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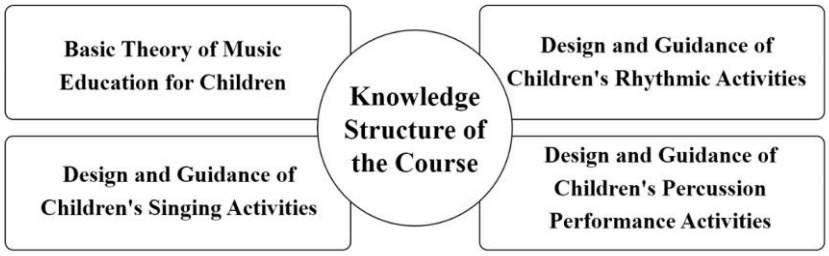

Figure 1: Knowledge Structure of "Kindergarten Music Education"

The course has initially carried out the research and application of informational teaching since 2005, but only concentrated on the low-level PPT teaching. Since 2019, the course team has carried out a blending informational teaching innovation design for the course guided by the "Education Information 2.0 Action". Compared with the traditional informational teaching method, the advantages of the new informational teaching method are shown in Table 1.

Table 1: This caption has one line so it is centered.

NO.	Content	Traditional	Modern
1	Learning Resources	Less, teachers provide few resources	More, rich types of resources, and a large number of network resources
2	Learning Environment	Simple and boring, disadvantage to stimulating students' initiative and creativity	Rich and interesting. Media, materials, and interactive environment promote the students' learning enthusiasm
3	Subject Status	Teacher-centered, students passively acceptance	Student-centered, the teaching process revolves around student learning
4	Teaching Theory	Master-apprentice educational theory, teachers dominate, students do not need to think independently	Constructing educational theory, teachers are helpers and facilitators of students' constructing meaning, and students think and acquire knowledge independently.
5	Requirements for Teacher	Low requirements, manage the classroom order well, just follow the PPT flow to explain the course content.	Teachers are required to be of high quality, to be extremely proficient in the course content, to have high informational teaching ability, to be adequately prepared for sudden changes in the classroom.
6	Effect of Students	Average level, high-ability students find it boring, low-ability students find it difficult to accept, teachers can't grasp the effect of students' learning	It is easy to realize one-to-one teaching, and clearly grasp the learning status of each student, which is conducive to teaching students in accordance with their aptitude.

From the above comparison, the informational teaching innovation of "Kindergarten Music Education" guided by "Education Information 2.0" uses advanced informational teaching concepts to replace traditional informational teaching concepts, reshapes the classroom teaching process and the teaching elements, realizes the innovation of teaching mode, information resources and classroom form.

3. Innovative Design of Blending Informational Teaching

In the innovative design of informational teaching, its objectives are:

(1) Using the blending informational methods, realize the "student-centered" teaching philosophy, complete the transition from "teachers understand"→"students understand";

(2)Using the blending informational methods, make the boring classroom alive, so that both willing and unwilling students are thinking, and the quality of teaching is improved;

(3)Using the blending informational methods, fully grasp the students learning status and learning effects so as to achieve teaching in accordance with their aptitude.

Based on the above goals, in the blending informational teaching of "Kindergarten Music Education", the "blending" is manifested in: the blending of teaching methods, the blending of teaching resources,

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the blending of teaching platforms, and the blending of teaching role identities. The framework is shown in Figure 2.

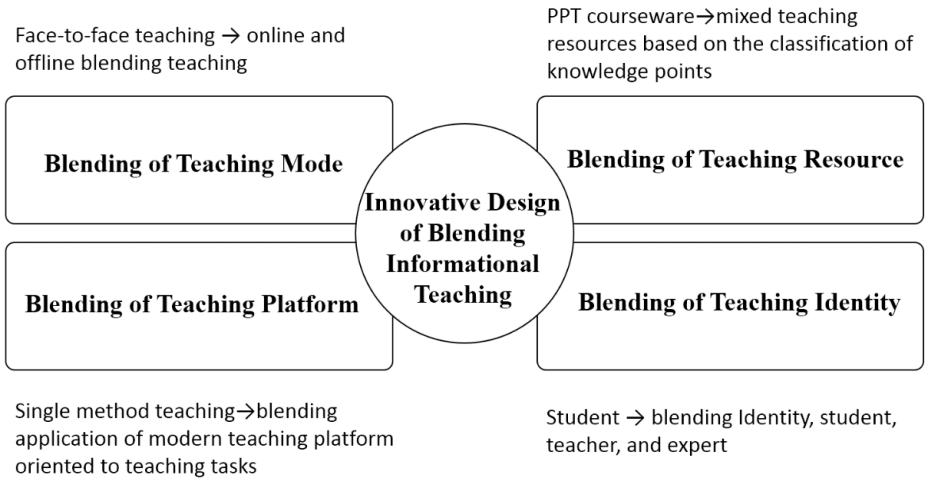

Figure 2: Knowledge Structure of "Kindergarten Music Education"

3.1. Online and offline Blending Teaching Method

At present, "Kindergarten Music Education" faces the same problem as most professional courses, that is, the class hours are drastically reduced and the course content continues to increase. The traditional informational teaching method, that is, the audio-visual education using PPT, has no solution to the problem, and the teaching effect is not good. Even if students are assigned self-study tasks after class, it is always unsatisfactory due to the difficulty of learning and the self-consciousness.

After adopting the new type of informational teaching, the flipped classroom method has been fully applied. In the online teaching platform, teacher releases teaching tasks and provide learning resources; in the offline classroom, teacher complete classroom teaching and organizes class seminars. With the support of various teaching platforms, students can be checked in the completion of learning tasks and their mastery of knowledge at any time, as shown in Figure 3.

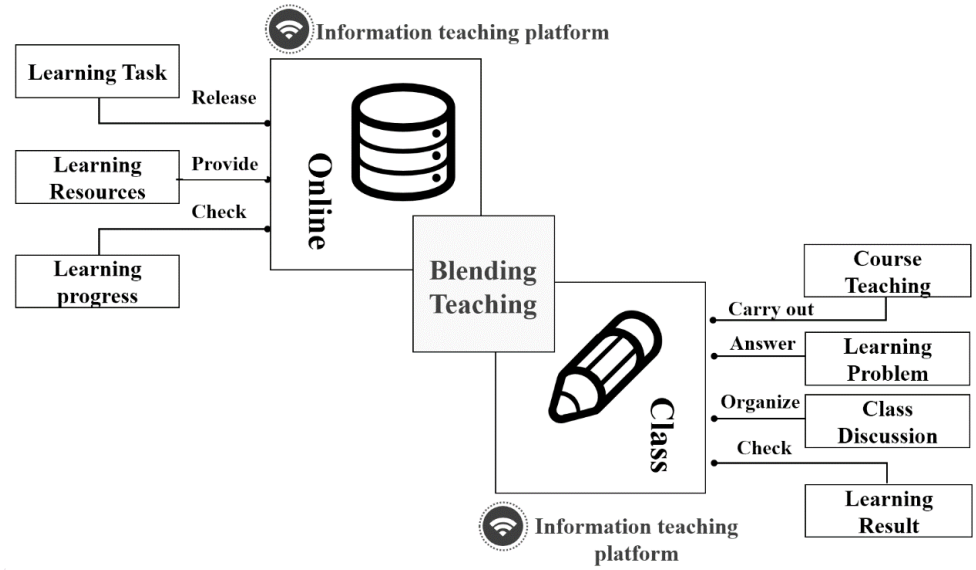

Figure 3: Assignment of teaching work in the blending informational teaching

3.2. Blending of Informational Teaching Resource Based on Knowledge Types

Early informational teaching resources were concentrated on the courseware for class, which was equivalent to transferring the original blackboard writing to the screen, and its improvement in teaching

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effect was extremely limited.

Learning from Anderson's classification method of knowledge dimensions, the paper also divides the knowledge points of “Kindergarten Music Education” into 4 types, that is, Factual Knowledge, Conceptual Knowledge, Procedural Knowledge, and Metacognitive Knowledge [4]. In view of the different attributes of knowledge points, an attribute-blending teaching resource-evaluation model [5] was established, as shown in Figure 4, which can help to collect, organize, and produce relevant information teaching resources for each type of knowledge, and develop related test evaluation questions or items.

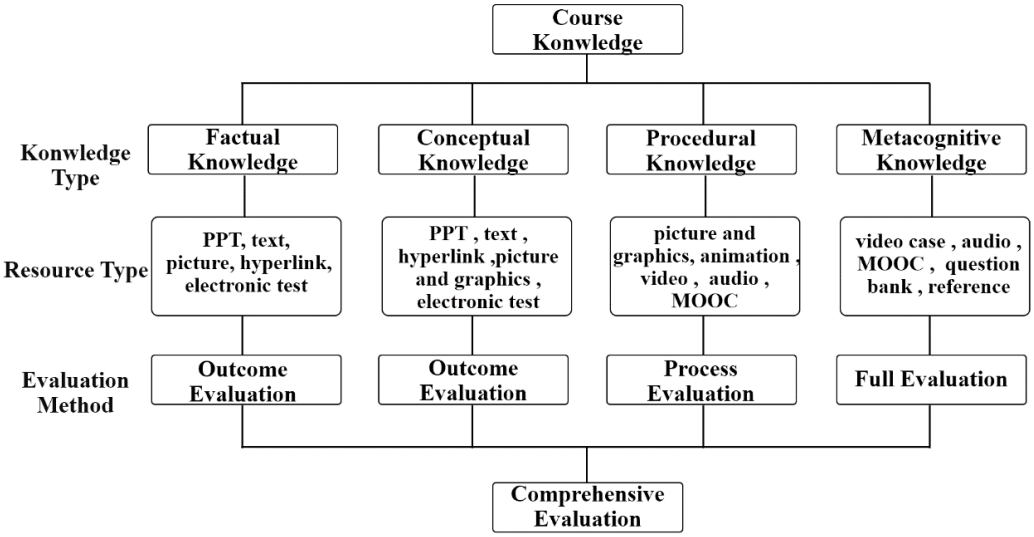

Figure 4: Model of knowledge attribute-blending teaching resources-evaluation

Based on the model, 65 knowledge points of “Kindergarten Music Education” are classified, and more than 1,500 informational teaching resources are established around the knowledge points. The resources that have been built for the course include: (1) 83 teaching courseware, covering all the knowledge points of the course; (2) 80 recorded micro-videos, which solve the key and difficult learning and preview of the course; (3) 123 teaching cases and 47 student homework materials, which help students consolidate their understanding of knowledge; (4) 375 test questions with diversified question types and difficulty, including temporary tests, homework and project assignments; (5) 148 videos, 167 audios, 37 animations, and 378 pictures and images of knowledge points, which better assist the learning of the course.

3.3. Selection and Organization of Blending Informational Teaching Platform

The large-scale promotion of mobile Internet has promoted the emergence of various modern teaching platforms. Especially during the 2020 spring epidemic, almost all kinds of teaching have been implemented using various online teaching platforms. Typical platforms include Rain Classroom, Xuetong, Wisdom Tree, Cloud Class, Tencent Meeting, ZOOM, China University MOOC, etc. These platforms have their own characteristics, strengths and weaknesses. For example, MOOC is good for online teaching. But it is not conducive for teachers to grasp the learning situation of students, and the feedback is insufficient, and the efficiency is not high; ZOOM is mainly live broadcast, but it is unable to complete online self-learning for students, and lacks teaching evaluation and assessment [6].

Therefore, based on the characteristics of course teaching and the actual situation of the school, the advantages and disadvantages of various information teaching platforms are compared and analyzed, and the blending informational teaching platforms are selected for “Kindergarten Music Education”, as shown in Figure 5.

(1) Rain Classroom is the classroom teaching platform. It is simple to use and easy to deploy[7], and has functions such as sign-in, barrage, quizzes, and courseware synchronization. Furthermore, Rain Classroom can check the status of students' knowledge mastery, activate the classroom atmosphere, and dynamically urge students to enter the learning state;

(2) Xuetong is the online learning platform. It releases learning tasks and teaching resources, helps students finish after-class extended learning, which facilitates the inspection of students' completion of

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self-study tasks, and answers common problems with BBS. At the same time, Xuetong is the teaching platform arranged by the school;

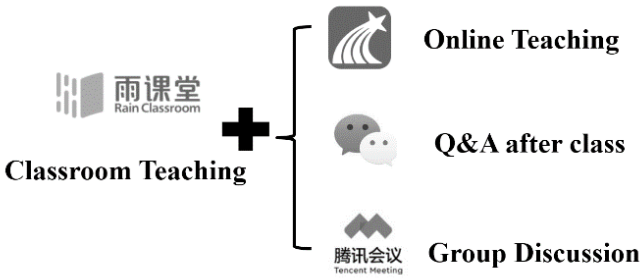

Figure 5: Blending Informational Teaching Platform of "Kindergarten Music Education"

(3) WeChat is used for students' temporary troubleshooting, which can provide timely simultaneous answers, creating a face-to-face guidance and one-on-one tutoring experience for students;

(4) Tencent Meetings is selected for the group project practice and after-class seminars. It avoids the constraints of time and place for guidance and research, and at the same time avoids the risk of plagiarism for practical projects by other teams.

Figure 6 shows the blending informational teaching process of "Kindergarten Music Education".

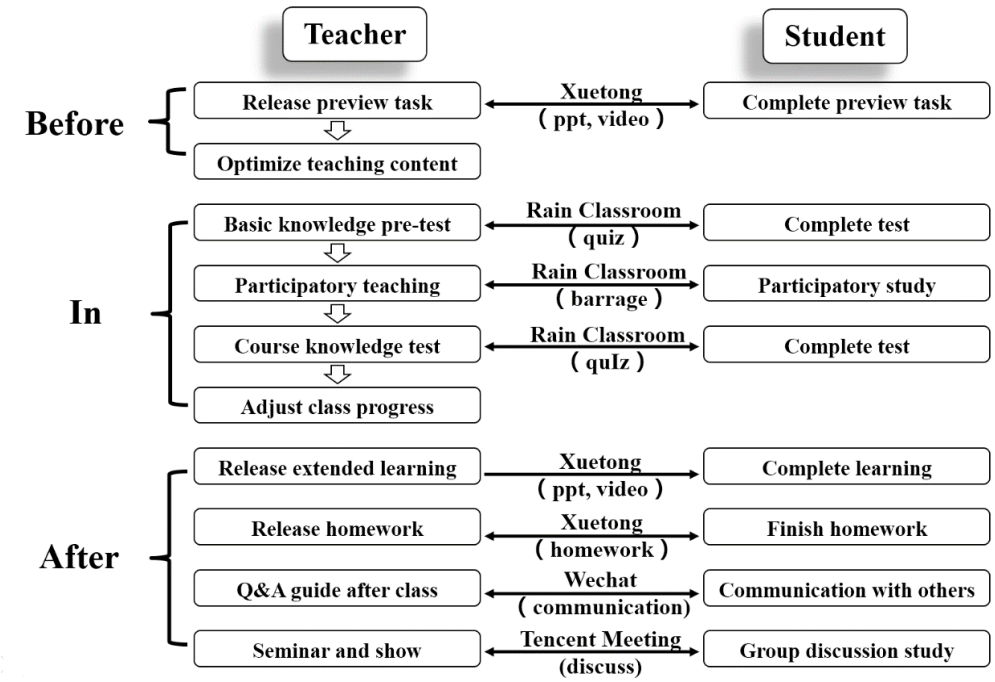

Figure 6: Blending Informational Teaching Process of "Kindergarten Music Education"

Before class: The teacher's side, Xuetong releases the course preview tasks (including learning courseware, micro-videos, etc.), the student's side receives the tasks and completes the course preview. The teacher side can obtain the statistical data of the student's preview through the Xuetong platform, and optimize classroom learning content accordingly;

In class: Using Rain Classroom, the teacher firstly publishes quiz to inspect the students' mastery of the preview content and basic knowledge of course, so that he(she) can flexibly master the classroom content. During the lecture, the teacher can appropriately open the barrage function of Rain Classroom and students can ask and answer questions in time, which can also activate the atmosphere in the classroom. After teaching the knowledge points completed, the teacher carries out the quiz immediately, and the students must follow the teacher's rhythm. Of course, the teacher can adjust the classroom progress according to the students' test results.

After class: The teacher publishes coursework and expand learning tasks through Xuetong, answers

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questions through WeChat group, participates in the discussion and display of project-based assignments through Tencent Meeting.

3.4. Blending Teaching Role Identities for Learning Tasks

The early informational education focuses on teachers speaking and students listening, so students are passive learners [8]. The teaching effect is poor because students have no initiative in learning.

In the constructed new type of blending informational teaching, students' identities are no longer passive learner. With different learning tasks, they play different role identities, such as active learners, domain experts, teachers, etc. Similarly, for different identity roles, different tasks are also given. As shown in Figure 7, in the process of blending informational teaching, the status of the students' role changes.

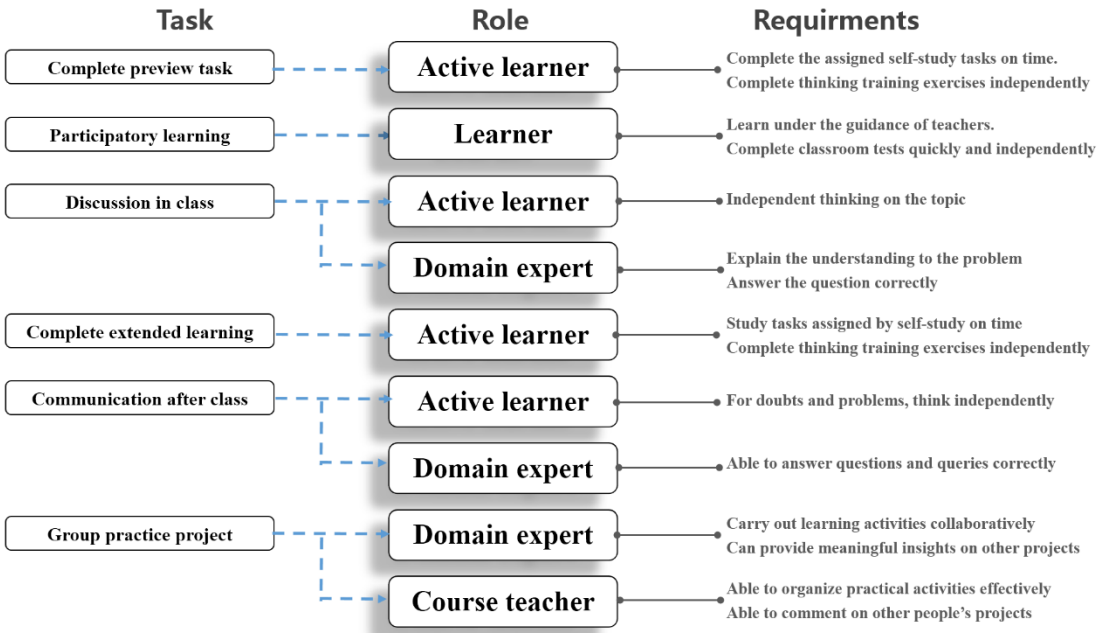

Figure 7: Blending Teaching Identity based on Teaching Task

4. Blending Informational Teaching Practice of Kindergarten Music Education

Take the "How to Arrange a Story" section as an example, the flow chart of the innovative design of blending informational teaching is shown in Figure 8.

Before class, the micro-video "Kindergarten Rhythm Activity Organization and Design Theoretical Knowledge" was released through Xuetong, and students were asked to analyze the music styles and interest points of "March Past of the Kitchen Utensils", as shown in Figure 9.

In the class, the teacher checked the students' mastery of theoretical knowledge with Rain Classroom quizzes, as shown in Figure 10.

For after-class seminars and presentations, the WeChat group + Tencent Meeting method was adopted, as shown in Figure 11.

5. Conclusions

The teaching effect of "Kindergarten Music Education" has been greatly improved through the implementation of informational transformation and practice in teaching. In 2019, the average score of the course is 75.2. In 2020 and 2021, when the new blending informational teaching is launched, the average scores are 79.8 points and 80.2.Students completed the teaching practice 4 times and formed 18 teaching cases (higher quality). And then, 2 provincial first prizes, 3 provincial second prizes, and 8 provincial third prizes were won when some students participated the skill competition. At the same time, due to their outstanding performance in the kindergarten internship, the students have been well received

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by the kindergarten.

The innovation and practice of the blending informational teaching has promoted the realization of the "student-centered" teaching, the transformation from "teachers understand" to "students understand". The use of informational teaching activates the classroom atmosphere, cultivates students learning method and practical ability of "autonomy, independence, collaboration, and inquiry", effectively promotes the learning effect. Now, the informational innovation of "Kindergarten Music Education" is still going on. It is believed that the blending informational teaching will also play an important role in the follow-up course teaching.

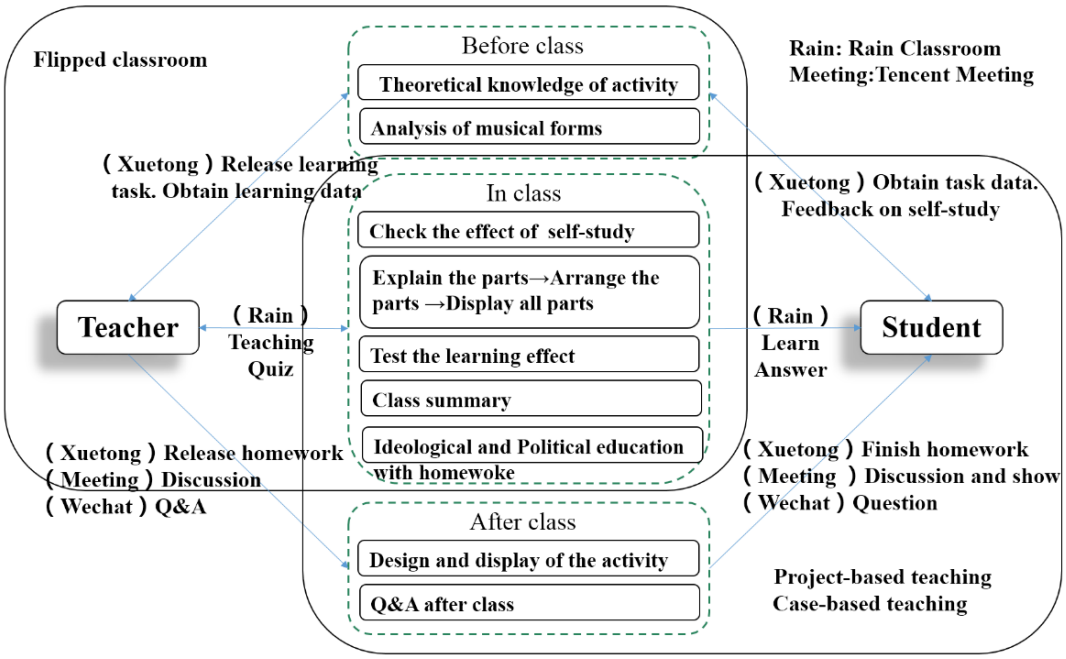

Figure 8: Blending Informational Teaching Process of "How to Arrange a Story"

Figure 9: Release Learning Task

Figure 10: Quiz of Rain Classroom

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Figure 11: Discussion and Display based on WeChat and Tencent Meeting

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