

An Analysis of the "KAE" Three-line Teaching Strategy in Teacher Education Courses for Undergraduate Teacher Training Students Teaching and Learning

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Abstract: Based on the basic concept of "student-center and output-oriented" for teacher education accreditation, this study addresses the outstanding problems of teaching teacher education courses for undergraduate normal students and creates the "KAE" three-line teaching strategy, i.e. in the course teaching, a three-line teaching is designed. The "KAE" strategy is a progressive teaching strategy that includes the Knowledge line, the Apply line and the Expand line, and is used throughout the course. This teaching strategy has been continuously applied to the teaching of teacher education courses for undergraduate normal students, and has been repeatedly validated and improved. The results of the evaluation of both teaching and learning show that the "KAE" three-line teaching strategy is effective, distinctive and can be replicated.

1. Introduction

In recent years, many studies in China and abroad have discussed "what kind of knowledge teachers need to have" [1]. However, "having knowledge about teaching in one's head" cannot be simply equated with "being able to do specific teaching tasks", as Ball and Forzani [3] mention in their study. There is a gap between "knowing" and "doing". One of the key issues that teacher education needs to address is how to successfully translate the knowledge in the mind into external teaching behaviors. At present, most teacher training colleges do not pay enough attention to the training of normal students, the training model is not effective, there is a disconnect with the subject curriculum, students emphasise subject courses over teacher education courses, and the number of course credits and classroom hours focusing on the development of basic teaching skills of teacher trainees is small. The main focus of this study is on the function of teacher education courses in enhancing basic teacher education.

2. Background to the Creation of the "KAE" Three-Line Teaching Strategy

This study took two years (2018.03-2020.03) to interview 95 teachers in 18 undergraduate teacher education institutions, including 24 associate deans (department chairs) responsible for

teaching management and 71 front-line professional teachers with teacher education programmes. Through sorting out the data collected from the interview, the problems existing in the teaching of teacher education courses for undergraduate normal students are summarized as follows.

2.1 Educational Sentiment is Meager

The course urgently needs to strengthen curriculum thinking and politics, and integrate the thinking and politics content that embellishes the love of education among normal students, so as to solve the current problem of low identification with the teaching profession among local undergraduate normal students.

2.2 Poor Learning Subjectivity

The key to curriculum teaching reform is to focus on learning guidance, stimulate students' independent learning potential, give full play to their subjective initiative, innovate the curriculum teaching model, and solve the problem that under the traditional teaching model, students are not enthusiastic about learning, are used to passive learning, and pay more attention to exam points for test scores.

There is a disconnect between theoretical learning and the cultivation of professionalism. The course needs to adopt targeted teaching methods and enrich the diversified teaching environment according to the teaching content and students' personality characteristics, so as to achieve a seamless connection between theoretical learning and professional literacy enhancement of teacher trainees.

3. The Process of Implementing the "KAE" Three-Line Teaching Strategy

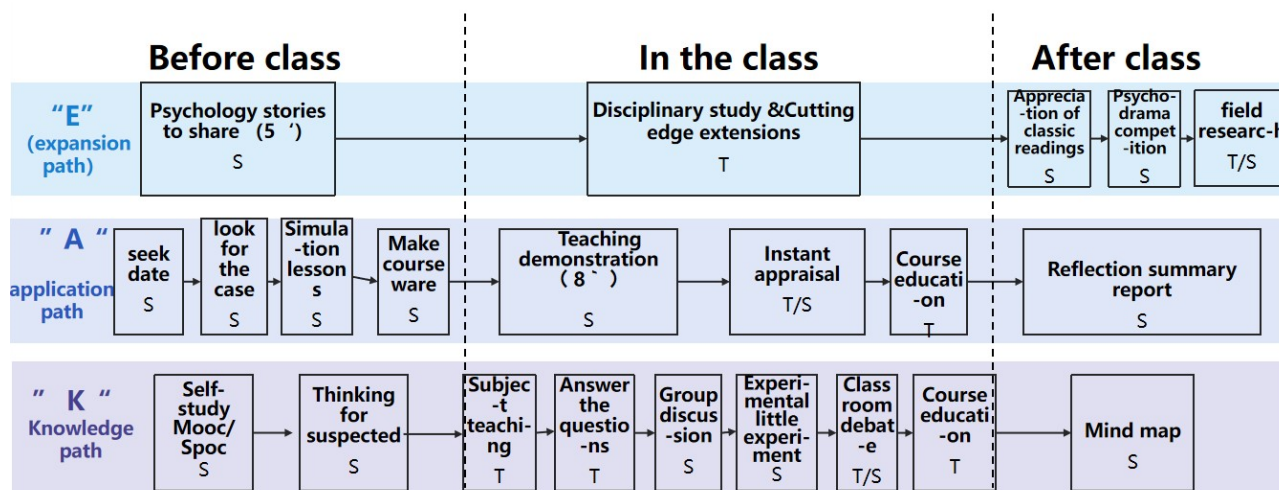


Figure 1. Schematic Diagram of "KAE" third-line Teaching Strategy

Annotation: T: Teacher; S: Student.

As shown in Figure 1, the "KAE" three-line teaching strategy aims to organically integrate the pre-course, classroom and post-course, by making good use of the pre-course, focusing on the classroom and enriching the post-course, setting learning tasks, implementing teaching links and steps, adopting flexible and diverse teaching methods and a rich teaching environment for different teaching content sections. In addition, we have built a "five-integration" offline course teaching model that emphasises student-center, i.e. the integration of teaching objectives with the curriculum,

the integration of teaching content with theory and practice, the integration of teaching strategies with the three lines of "KAE", the integration of teaching methods with online and offline, and the integration of teaching evaluation with the process. The teaching objectives are integrated with the curriculum, the teaching contents are integrated with theory and practice, the teaching strategies are integrated with the three lines of "KAE", the teaching methods are integrated with online and offline, and the teaching evaluation is integrated with the process and results. Specific teaching is implemented as follows.

Knowledge Line: the students study the MOOC/SPOC online before class and leave questions for reflection; the teacher in class teaches the key points, answers questions and solves problems, sets up cooperative learning group discussions, experiential mini-experiments, class debates and other parts, which are naturally integrated into the course thinking and politics according to the teaching content; the students create a mind map of knowledge points after class. This study line is designed to provide undergraduate teacher trainees with a solid foundation in the theory contained in the course.

Application Line: The "Teacher-to-be" training programme is conducted in learning groups. Before the class, the group searches for information, finds cases, prepares mock lessons and produces courseware according to the learning tasks set by the teacher; in the class, the group representatives complete an 8-minute teaching demonstration, teachers and students evaluate the teaching in real time, and the teacher guides the group into the course thinking and politics; after the class, the group completes a reflective summary report on the task. This learning line is mainly for promoting undergraduate normal students to link theory with practice and to build a platform for practical training to enhance teacher education.

Extension Line: 5 minutes before class for students to share subject short stories; teachers introduce subject frontiers; after class students complete extension tasks such as classical reading and appreciation, subject competitions and field research. This line of study is designed to further strengthen the pathway of literacy development for normal students.

After several rounds of teaching practice, this study suggests that when implementing the "KAE" three-line teaching strategy, it is also necessary to select teaching methods and teaching environments that are well matched to the different teaching contents. In the pre-classroom, task-driven and practice methods are recommended; in the classroom, lecture, conversation, discussion, scenario-based and practice methods are used; and in the post-classroom, task-driven and scenario-based methods are used. The teaching environment is mainly offline classroom, effectively combined with online teaching resources, and actively expand teaching practice venues, such as real-life scenarios, primary and secondary school teaching classrooms, etc.

4. Features And Innovations of The "KAE" Three-Line Teaching Strategy

4.1 Special Features

The three-line design is advanced and emphasises "one degree of gender". The "knowledge line", in which students study online by themselves and are taught by the teacher, reflects a higher level of sophistication; the "application line", in which students complete "teacher-to-be" training projects, reflects a degree of challenge; and the "extension line", in which students complete personalised tasks, reflects a degree of creativity. In the "Extension Line", students complete personalised tasks, reflecting creativity, and the three lines are well integrated to achieve the teaching objectives.

4.2 Innovation

The "KAE" three-line teaching strategy has led to the development of a student-center

"five-integration" offline course teaching model.

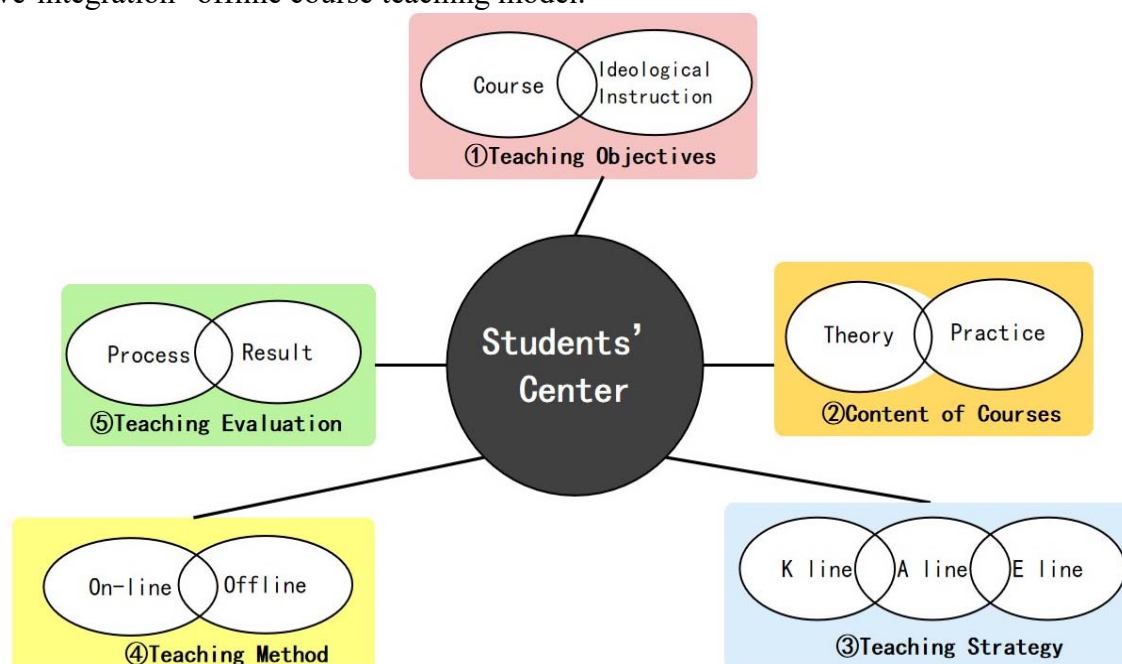


Figure 2. The "five integration" Offline Classroom Teaching Mode that Highlights the Student Center

As shown in Figure 2, "five integration" means that the teaching objective is to achieve the integration of curriculum and thinking and politics. Through the teaching of knowledge points and the sharing of cases and practical sessions, we can achieve a silent ideological and political education and value guidance, and complete the purpose of educating people in the course. The content of teaching is integrated with theory and practice. While explaining the basic theory in a concise manner, the course also focuses on adding typical practical cases and creating realistic and vivid learning situations to enhance the practicality of the teaching content. The teaching strategy realises the integration of the three lines of "KAE". The three lines are progressive and spiral, and organically integrate before, in and after class to achieve a win-win situation in terms of learning subject knowledge and enhancing the professionalism of normal students. The teaching methods are integrated online and offline. Using high-quality online teaching resources, teachers arrange for students to complete their self-study tasks before class, and carry out offline classroom teaching by combining students' questions and cleverly designing cooperative learning sessions in class, so that heuristic teaching and student-center teaching can be carried out throughout. Teaching evaluation is a blend of process and outcome. While focusing on outcome assessment, we also diversify the evaluation subjects and focus on process assessment, i.e.: focus on understanding, highlighting practice, timely feedback, etc.

5. Effectiveness of the "KAE" Three-Line Teaching Strategy

5.1 Course Grading Method (Reference Version)

Classroom grades (20%)

A. Attendance assessment: There are two grades: pass and fail. Three unexcused absences from class are considered as fail.

B. Class participation (20%): including the comprehensive performance of participation in

activities such as sharing psychological stories before class, class question and answer sessions, discussions and debates, etc. Participation as a group will be assessed by the group, and 1 point will be added for each individual time.

Extracurricular grades (40%)

A. Completion of the 'Associate Teacher' training project (20%): graded by the group leader under the guidance of the teacher.

B. Completion of online catechism/SPOC self-study (10%): the class representative assists the teacher in assigning grades based on self-study punch cards, personal online learning record sheets, etc.

C. Completion of extra-curricular extension tasks (10%): Teachers will assign grades according to the completion of extension tasks.

Final examination results (40%)

5.2 Course Evaluation

In this study, the "KAE" three-line teaching strategy has been implemented in the last two years of teaching three teacher education courses in our school. In the "teaching" assessment, the quality of classroom teaching was assessed to be above 90; the number of students who were satisfied with the teaching in the three classroom feedback sessions before, during and after the course was as high as 95%. In the "learning" assessment, the average score of students in the final examinations of the semester was 81.6, with an excellent rate of 46.3%. The observation and interaction of teaching, and the summary report on the completion of group tasks showed that nearly 75% of the normal students' awareness of professionalism and practical skills had been significantly improved.

5.3 Effectiveness of the Reform

The teaching teams of our three teacher education courses have won many provincial classroom teaching competition awards, teaching achievement awards, school-level "Top Ten Teachers" and A-class teachers. In the past two years, the passing rate of our students' teacher qualification exams reached over 85%; 15 students won the first prize in the provincial teacher training students' skills competition; the initial employment rate of teacher training graduates exceeded 90%; individual outstanding teacher training graduates were awarded the "2017-2018 National Student Employment and Entrepreneurship Annual News Personality" and "National Advanced Individuals in Poverty Alleviation" and other awards.

6. Conclusion

In the pre-service education stage, undergraduate normal students usually go through the process of "unconscious" to "conscious" and "unclear" to "trying to speak clearly". "The process of improving their basic literacy is "important at the beginning of their career, and the work is done in the usual way" [4]. Teachers in higher education institutions should make effective use of the teacher education curriculum to consciously and comprehensively train undergraduate normal students. After all, compared to the environment in which they start their careers after graduation, the course learning environment during their school years is relatively relaxed, and there is an opportunity to lay a solid foundation for developing good reflective teaching skills, improving their teaching quality and growing into excellent teachers in the future. The application and promotion of the "KAE" three-line teaching strategy will largely reverse the current situation of ineffective teaching in teacher education courses for undergraduate normal students, effectively solving the problems that exist and maximising the spiral development of subject learning and the

strengthening of basic teacher skills.

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