



Research on the Design of Micro-courses for Normal University Students

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Abstract. The design of Micro-courses is a new way to improve the teaching skills of normal university students. The design of Micro-courses includes six stages: Topic generation, Careful thinking, Construction, Innovation, Reflection, and Achievement. This design process has a unique internal connection with the formation of professional beliefs among normal university students. In the process of Micro-course design, normal university students should try to avoid common problems, complete the transformation from "self-centered" learners to "student-centered" educators, and realize the manifestation of their self-existence.

Keywords: Normal university students, Micro-course design, Teacher professional development

1 Introduction

1.1 Micro-courses are Concentrated Essence Micro-courses are a Concise and Highly Concentrated Form of Teaching

Micro-course is a short, concise and highly concentrated form of teaching [1], which helps students to master core knowledge and skills in a short period of time through concise and concentrated explanation and analysis. Micro-course has the following four characteristics: (1) The theme is prominent and the course content is focused on specific knowledge points. (2) Highly concentrated, can simplify complex knowledge points, extract the core content. (3) Explain accurately and analyze knowledge points with images. (4) Various forms, such as videos, animations, presentations and other forms to attract students' attention.

1.2 The Design of Micro-course Can Increase the Professional Belief of Normal University Students

"Belief" can be understood from philosophical and psychological perspectives. In epistemology, belief is seen as a subjective mental state developed through individual experiences and evaluations during practice, characterized by a deep trust in a partic-

ular reality or concept. Psychologically, belief is described as a personal tendency to accept the validity of certain ideas, thoughts, or knowledge, influencing one's regulation and control of actions.[2] Both perspectives agree that belief entails a trust relationship between the subject and the object, impacting the subject's cognition and behavior. "Professional belief" in this paper refers to that normal university students have a deeper understanding of the teaching profession they will be engaged in during their study in school, are able to think about the educational process and education problems from the perspective of the educated, and constantly improve their theoretical and practical literacy, form a firm attitude towards the value of the teacher profession.

"How to help students establish the professional belief?" Through extensive practice, we have developed a set of national normal university students Micro-course Competition as a training platform to guide normal university students to complete Micro-course works through six steps provided below.

2 The Process of Micro-course Design

"Instructional design" is a system design that must be carried out in accordance with certain procedures and steps.[3] This study believes that Micro-course design mainly includes six design links: Topic generation, Careful thinking, Construction, Innovation, Reflection and Achievement.

2.1 Micro-course Topic Generation

A good topic is the first element of making a Micro-course. As shown in Table 1, Good topic generally have the following characteristics: prominent theme, highly focused, short and concise, closely combined with life, upward style. For example, the grand prize of the third National (China) Normal University Students Micro-course Competition works "The green magic of Impatiens", the name focuses on the specific characteristics of immortals "Green branches and green leaves", highly focused, short and concise, while giving readers the imagination of life, the combination of green and plants gives people a spirited feeling of life. The generation of good topics not only requires normal university students to think deeply about the course content and have a keen insight into life and values, but also requires normal university students to think backward about the title of Micro-course from the perspective of the educated. On the basis of deep thinking, a good topic often arises from a moment of impulse. The process of producing the Micro-course requires normal university students to think about teaching content, education and life, value guidance, and the perspective of the educated, etc. These thoughts enable normal university students to have a deeper understanding of the teaching profession they will be engaged in. The moment the topic is generated, the quantitative change becomes qualitative change, and the fire of teachers' professional belief has been ignited.

Table 1. Steps and requirements for selecting the topic

Step	Process	Require	Relationship with professional beliefs
Topic Generation	Select a good topic	The theme is prominent, highly focused, short and concise, closely integrated with life, the style is upward.	Light the fire of teachers' professional belief

2.2 Careful Thinking of Micro-course

The production of Micro-course requires normal university students to think deeply about the teaching design from the perspectives of experts and students. The criteria for evaluating the quality of Micro-courses are not only expert scores and leaders' praise, but also whether students' "praise" or not. For the first time, students' evaluation is in the first place in teaching evaluation. In order to win students' recognition for the Micro-courses designed by themselves, normal university students need to deeply observe students' interests, habits and hobbies before making Micro-courses, and then start in-depth thinking from this starting point. In the process of making Micro-courses, we find out the real needs from the perspective of students, sort out knowledge points of different difficulty levels, organize classroom languages that are easily accepted by students, and assign classroom tests and homework that students can complete. The process of making Micro-courses is always guided by the concept of "students first", and normal university students who adhere to this concept show more enthusiasm and attention to students.[4] As Table 2 shown below, the process of generating enthusiasm and attention is regarded as the transformation from the perspective of educators to the perspective of the educated, which means that normal university students have obtained the correct perspective of teaching profession.

Table 2. Careful thinking of steps and requirements

Step	Process	Require	Relationship with professional beliefs
Careful Thinking	Grasp of learning situation	Understand the textbooks, understand the students, find the real needs, pay attention to the evaluation of students.	Establish the educational concept of "Students First"

2.3 Construction of Micro-course

As shown in Table 3, the production of Micro-courses requires normal university student to construct knowledge points from multiple perspectives. Due to the constraints of video presentation format and duration, many contents are not suitable for display. This necessitates that normal university student learn to appropriately select teaching content. Micro-courses have a broad audience and lack interaction between instructors and learners, thus demanding that normal university student must adjust

teaching emphasis and difficulty according to learners' comprehension ability and psychological state. Furthermore, the educational characteristics inherent in Micro-course attributes require normal university student to provide comprehensive guidance on values from an ethical perspective. Consequently, a value evaluation system distinct from traditional classroom teaching has emerged. Through reevaluation of content, difficulty levels, and assessment systems, normal university student have developed professional abilities tailored for Micro-course contexts regarding course content construction. The process of producing Micro-courses has significantly enhanced their ability to create unique courses with information technology. As the number of Micro-courses increases over time, this set of thinking abilities—from theoretical understanding to classroom instruction—alongside comparative teaching skills will evolve into an intertwined forest rather than two separate trees. Ultimately it will lay a solid foundation for shaping the professional beliefs held by future educators.

Table 3. Construct steps and requirements

Step	Process	Require	Relationship with professional beliefs
Content Construction	Redesign around the teaching content, difficulty and evaluation system	Re-sort the important and difficult points, sort out the curriculum dynamic line, the same class is heterogeneous, and pay attention to value guidance.	Solid text and information teaching ability

2.4 Micro-course Innovation

As Table 4 shown below, the production of Micro-courses requires normal university student to break through traditional teaching from an innovative perspective. In the traditional teaching context, some teachers during the preparation process is to search for online courseware, and make adjustments based on their understanding of the course. Under the influence of this logic, more and more classes are becoming similar, and the teaching process is gradually losing its "hundred schools of thought, a hundred flowers in full bloom" ideal state. Demand influences supply, so a large number of low-quality course resources have flooded the Internet, seriously affecting normal university student' correct grasp of course content and restricting their ability to independently design the teaching process. As a fresh thing in the field of education, there is not enough reference material for Micro-courses, which forces normal university student to calm down and study the teaching content in depth. Based on a deep understanding, they redesign the teaching process and exhaustively search for suitable materials from various websites, using different video production software to process the materials in terms of size, color, voice, format, speed, etc. The birth of every excellent Micro-course work means the soaring of a prospective teacher's inno-

vative thinking and that he has completed a difficult process of selecting, combining, creating, and synthesizing from the digital ocean.

Table 4. Innovation steps and requirements

Step	Process	Require	Relationship with professional beliefs
Curriculum Innovation	Look for breakthroughs in the process of redesigning the curriculum	Out of the traditional courseware shackles, screening, combination, creation, synthesis.	Develop innovative thinking

2.5 Micro-course Reflection

The requirements of Micro-course production demand that normal university student reflect on teaching from the perspective of "likes". Traditional classroom teaching reflection is usually incorporated into specific stages of teaching design and documented in lesson plans, with its quality heavily reliant on the teacher's reflective abilities. As shown in Table 5, reflection in Micro-course production takes place after the initial draft of the Micro-course is completed, when normal university student reflect on the Micro-course from the perspective of whether they themselves, the students, their peers, and their supervisors "like" it, and then make adjustments again and again.[5]In this process, students, due to their large numbers, are the primary audience and the service object, and their "likes" are of paramount importance. Peers and supervisors, due to their observer status, are in the second tier of "likes". Self-"likes" mean that reflection is in place. Traditional classroom reflection cannot be directly presented, while the four reflection perspectives in Micro-course teaching allow for the real presentation of multi-dimensional reflection in the learning and growth process of normal university student. Being able to revise the Micro-course product repeatedly from the four reflection perspectives means normal university student formed a service-oriented teacher professional value.

Table 5. reflection steps and requirements

Step	Process	Require	Relationship with professional beliefs
Multi-angle Reflection	Send the Micro-course video to four groups of people for comments	Student satisfaction, peer satisfaction, teacher satisfaction, self satisfaction.	Forming Service-Oriented Teacher Professional Values

2.6 Micro-course Achievement

As Table 6 shown below, the completion of outstanding Micro-course projects highlights the self-existence of normal university students. In May 2021, Chinese Education Department issued "Information-Based Teaching Ability Standards for Normal University Students," namely the "Professional Standards for Primary Education Normal University Students" [6]. These standards clearly that normal university students need to master the following four major abilities: moral practice ability, teaching practice ability, comprehensive education ability and self-development ability. The standards require students not only master the essential skills for offline teaching but also learn to shift teaching content from the students' perspective. They should be able to independently conceive and complete the production of Micro-course projects, thus cultivating themselves into information-based teaching-capable "Excellent Teacher" of the new era. With the completion of outstanding Micro-course projects, normal university students gradually transform from "self-centered" learners to "student-centered" educators, achieving the unity of "impulse" and "achievement."

Table 6. Achievement steps and requirements

Step	Process	Require	Relationship with professional beliefs
Overall Achievement	Micro-course completion	Teacher ethics practice ability, teaching practice ability, comprehensive education ability, independent development ability has been comprehensively improved.	The "self-existence" of teachers is highlighted

3 Conclusion

The professional beliefs of normal university students not only influence their current academic performance but also have a significant impact on their future educational and teaching behaviors. The design of Micro-courses serve as a crucial means for cultivating the information literacy of teacher education students, providing a reference model for the formation of their professional beliefs. This process deserves substantial attention. The Nationwide Micro-course Competition For China Normal University Students, held for five consecutive years, has sparked a widespread interest in Micro-course production within the field of teacher education. With the participation of numerous research-oriented comprehensive universities and teacher training institutions, the design of Micro-courses have become an essential component of developing the professional competencies of future teachers. This trend underscores the importance of integrating Micro-courses into teacher education programs to enhance the professional growth and readiness of teacher education students.

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