



# The Impact of Learning Experiences on Meeting Teacher Accreditation Standards: A Mixed-Methods Study

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**Abstract:** Professional Accreditation for teacher education programs is a quality assurance measure for normal universities. To clarify the factors affecting student teachers' learning and their mechanisms, a mixed-methods study was conducted on government-funded student teachers. The study found that learning experiences in areas such as clear goals, student support, appropriate assessment, teaching quality, and course organisation have varying degrees of influence on learning outcomes. The mechanisms of influence include: the combined effect of misaligned learning goals and simplified exam content hinders the improvement of learning quality; gaps in subject systems and structural shortages of teacher resources undermine the distinctive features of teacher education; and an imbalance between increasing learning challenges and insufficient student support obstructs the development of professional competencies. Therefore, universities should leverage participation in professional accreditation as an opportunity to reform teacher education curricula, build high-quality teaching teams, optimize the structure of teacher resources, and improve student support services to create an excellent training environment.

**Keywords:** Teacher Education Professional Accreditation; Learning Experiences; Mixed-Methods Research; Student Teachers; Course Organization and Evaluation

## Introduction

In recent years, educational accreditation has become a critical external quality assurance tool in opening up teacher education [1]. Following the Ministry of Education's 2017 release of the "Implementation Measures for the Accreditation of Teacher Education Programs in General Higher Education Institutions (Provisional)," China officially began evaluating the quality of teacher education programs. The accreditation process is guided by principles of being "student-centered, outcome-oriented, and continuously developing," with a focus on ensuring that graduates meet recognized professional standards [2]. The "Standards for Secondary Education Program Accreditation" outlines the graduation requirements for student teachers, including professional ethics, teaching skills, educational knowledge, and personal development. In 2021, the Ministry of Education introduced the "Professional Competency Standards for Secondary Education student teachers (Trial)," which further defined competencies in ethics, teaching practice, comprehensive education, and self-development. These standards align with accreditation goals and help institutions optimize their training systems.

Most existing research on improving student teachers' learning quality through accreditation focuses on textual analysis, recommending adjustments to training goals, curriculum reforms, faculty development, and support systems [3][4]. However, there is a gap in research that explores the factors influencing student teachers' learning from their own perspectives, particularly in relation to meeting accreditation standards. While studies have linked students' learning quality to their experiences [6][7][8], they often overlook how these experiences specifically impact the fulfillment of accreditation requirements. This study aims to fill this gap by using a mixed-methods approach to investigate how student teachers' learning experiences affect their achievement of accreditation-related competencies, offering insights to optimize teacher education programs.

This research will identify key factors in the learning experience—such as course organisation, teaching quality, learning challenges, student support, appropriate assessment, and clear goal—that influence the moral cultivation, professional competence, and self-development of student teachers. It will also explore the mechanisms through which these factors contribute to overall program quality, providing evidence-based recommendations for enhancing the training system for student teachers.

Existing studies have focused on improving student teachers' learning through textual analysis of accreditation standards but have not thoroughly examined these factors from the students' perspectives. Moreover, there has been little exploration of the mechanisms linking students' learning experiences to their outcomes, particularly within the framework of the Accreditation Standards and Competency Standards. This study seeks to address this gap by analyzing how learning experiences influence the achievement of accreditation-related competencies, contributing to an underexplored area in educational research.

## II. Research Design

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## 2.1 Research Methodology

A mixed research method was employed, beginning with a quantitative approach using a multiple linear regression model to identify significant factors influencing student teachers' learning outcomes within the training system. Given that learning outcomes for student teachers are influenced by multiple factors from their learning experiences, the following model was constructed to verify the impact of Course Organization, teaching quality, learning challenges, student support, appropriate assessment, and clear goals on student teachers' learning outcomes:

$$Y_i = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + u_i$$

Where  $x$  is the independent variable affecting the learning experience,  $\beta$  is the regression coefficient of the independent variable, indicating the amount of change in the dependent variable when the independent variable increases by one unit while other control variables remain constant.  $\beta_0$  is the constant term, and  $u_i$  is the random disturbance term.

To further explore the mechanisms through which these factors affect student teachers' learning, a purposive sampling strategy was adopted to select 12 government-funded student teachers as interviewees. Based on the regression analysis results, a semi-structured interview guide was developed. All 12 students were from the case study university, with majors categorized into three groups: Humanities, Sciences, and Arts, following the classification of M University's government-funded student teachers. The students were primarily from the second, third, and fourth years, as first-year students were excluded due to their short duration in the program, which limited their ability to provide a comprehensive evaluation of their academic experience. Students from the other three years had more than one year of learning experience, allowing researchers to better assess the objective effects of each factor.

One limitation of this study is its reliance on self-reported data, which may introduce bias due to participants' subjective perceptions and potential inaccuracies in their responses. Additionally, the study focuses on a specific context within China's teacher education accreditation system, which may limit the generalizability of the findings to other educational settings or countries with different accreditation standards. The cross-sectional design of the study also restricts the ability to infer causality between learning experiences and outcomes, as it captures data at a single point in time. Finally, the study may not fully account for all external factors influencing learning outcomes, such as institutional resources or socio-cultural influences, which could affect the robustness of the conclusions drawn.

## 2.2 Research Participants

The data were collected from undergraduate government-funded student teachers at M University, a "Double First-Class" higher normal university. M University has extensive experience in developing teacher education programs and training student teachers, providing a significant number of high-quality teachers nationwide. This case study university is highly representative. A total of 409 questionnaires were distributed, and 329 valid responses were received. The specific distribution of the sample is shown in Table 1.

Table 1: Distribution of the Learning Experience Questionnaire Sample for student teachers (n=329)

Attribute	Sub-Attribute	n	Percentage
Gender	Male	64	19.5%
	Female	265	80.5%
Year Level	First Year	18	5.5%
	Second Year	101	30.7%
	Third Year	95	28.9%
	Fourth Year	115	35.0%
Major	Humanities	97	29.5%
	Sciences	213	64.7%
	Arts	19	5.8%

## 2.2 Analytical Framework

### 2.2.1. Student Teachers' Learning Experience Questionnaire

The Course Experience Questionnaire (CEQ), a widely used tool in multiple countries and regions, has been proven to be a reliable, verifiable, and useful method for measuring university students' learning experiences [9]. This study adapts the CEQ based on the characteristics of student teachers to form the student teachers' Learning Experience Questionnaire. It has six scales: (1) Course Organisation Scale (COS): the proportion of teacher education courses and other types of courses, the scheduling of academic hours, and the status of teaching materials; (2) Teaching Quality Scale (TQS): the preparation of teachers for courses, their willingness to help students, and their commitment [10]; (3) Learning Challenges Scale (LCS): the pressure of completing coursework and assessments; (4) Clear Goals Scale (CGS): clarity of learning objectives and assessment standards [11]; (5) Appropriate Assessment Scale (AAS): the extent to which students' understanding of knowledge is reflected in their grades [12]; (6) Student Support Scale (SSS): access to and satisfaction with key

university facilities and services that support student teachers' learning outcomes [13].

Exploratory factor analysis of the student teachers' Learning Experience Questionnaire was conducted using SPSS 26.0, resulting in a six-factor structure, as shown in Table 2. The Bartlett test for sphericity yielded an approximate chi-square value of 5866.939, with 253 degrees of freedom and a p-value of less than 0.001. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.937, and the cumulative variance explained was 77.388%. The six factors were

teaching quality, Course Organisation, Learning Challenges, student support, appropriate assessment, and Clear Goals, aligning with the established analytical framework. Confirmatory factor analysis and reliability testing were conducted using SPSS 26.0 and AMOS 28.0, with the results presented in Tables 3, and 4.

Table 2: Factor Structure of the student teachers' Learning Experience Questionnaire

Factor	TQS	COS	ACS	SSS	CCS	AAS
Diverse Teaching Methods	0.937					
Feedback on Learning Progress	0.852					
Post-class Task Review	0.891					
Teacher-Student Interaction	0.843					
Proportion of Teacher Education Courses		0.848				
Academic Hour Arrangement per Year		0.844				
Practical Teaching Courses		0.843				
Practice Link of Teacher Education Courses		0.713				
Course Materials		0.610				
Study Load			0.906			
Post-class Task Burden			0.902			
Course Difficulty			0.893			
Course Pressure			0.871			
Provision of Learning Resources				0.893		
Access to Learning Resources				0.849		
Academic Support				0.814		
Problem Solving				0.737		
Ease of Goal Recognition					0.842	
Clarity of Course Objectives					0.816	
Clarity of Teacher Requirements					0.604	
Focus of Assessment						0.865
Validity of Grades						0.795
Assessment Requirements						0.545

Extraction Method: Principal Component Analysis. Rotation Method: Kaiser Normalized Varimax Rotation.  
a. Convergence achieved after five iterations.

Table 3: Fit Indices and Convergent Validity Indicators for the student teachers' Learning Experience Questionnaire

Model Fit Indices / Convergent Validity Indicators	Value
$\chi^2$	605.115
df	246

$\chi^2/df$	2.460
RMSEA	0.067
CFI	0.970
NFI	0.901
TLI	0.931
IFI	0.939
COS	0.934-1.076 (AVE: 0.654, CR: 0.904)
TQS	1.000-1.073 (AVE: 0.736, CR: 0.918)
LCS	0.952-1.063 (AVE: 0.729, CR: 0.915)
SSS	0.879-1.000 (AVE: 0.743, CR: 0.920)
AAS	1.00-1.240 (AVE: 0.561, CR: 0.793)
CGS	0.732-1.000 (AVE: 0.481, CR: 0.756)

Table 3: Discriminant Validity of the student teachers' Learning Experience Questionnaire

Table 3 presents the model fit indices and convergent validity indicators for the student teachers' Learning Experience Questionnaire, showing that the model fits the data well, with  $\chi^2/df = 2.460$ , RMSEA = 0.067, CFI = 0.970, NFI = 0.901, TLI = 0.931, and IFI = 0.939. The average variance extracted (AVE) values for most factors are above 0.7, except for AAS (0.561) and CGS (0.481), while composite reliability (CR) values for all factors exceed 0.7, indicating good convergent validity. Table 4 demonstrates the discriminant validity of the questionnaire, where the square root of each factor's AVE (diagonal values) is higher than its correlations with other factors (off-diagonal values), confirming good discriminant validity.

### 2.2.2. student teachers' Learning Outcomes Questionnaire

Based on the "Competency Standards," the Learning Outcomes Questionnaire is divided into three Scales: (1) Moral Cultivation Scale (MCS): changes in educational passion, professional identity, and moral qualities of student teachers during their undergraduate studies; (2) Professional Competence Scale (PCS): an essential component of "Teaching Practice Ability," primarily referring to improvements in various professional

abilities and qualities; (3) Self-Development Scale (SDS): changes in student teachers' ability to learn independently and enhance themselves. The survey subjects were in-school student teachers who have not yet entered teaching positions, lacking direct experience in "educating others." Therefore, the ability to reflect on student teachers' educating abilities remains to be further explored, and this dimension was not included in the Questionnaire. For the same reasons, the Questionnaire did not include all aspects of "Teaching Practice Ability" as specified in the "Competency Standards," but primarily focused on "Professional Competence."

Table 4: Discriminant Validity of the student teachers' Learning Experience Questionnaire

	COS	TQS	LCS	SSS	AAS	CGS
COS	0.809					
TQS	0.684	0.858				
LCS	0.203	0.214	0.854			
SSS	0.689	0.709	0.220	0.863		
AAS	0.656	0.609	0.222	0.660	0.750	
CGS	0.471	0.384	0.059	0.490	0.494	0.694

Exploratory factor analysis of the student teachers' Learning Outcomes Questionnaire was conducted using SPSS 26.0, resulting in a three-factor structure, as shown in Table 5. The Bartlett test for sphericity yielded an approximate chi-square value of 3220.717 with 45 degrees of freedom and a p-value less than 0.001. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.946, with a

cumulative variance contribution rate of 84.202% for the three dimensions. Confirmatory factor analysis results are shown in Tables 6, and 7.

Table 5: Factor Structure of the student teachers' Learning Outcomes Questionnaire

Factor	MCS	PCS	SDS
Professional Identity	0.903		
Teaching Intention	0.904		

Factor	MCS	PCS	SDS
Educational Passion	0.843		
Moral Qualities	0.743		
Knowledge and Skills		0.940	
Understanding of Students		0.852	
Educational Philosophy		0.559	
Comprehensive Competence		0.536	
Research Ability			0.941
Collaboration Ability			0.714

Extraction Method: Principal Component Analysis.  
 Rotation Method: Kaiser Normalized Varimax Rotation.  
 a. Convergence achieved after five iterations.

Table 6: Fit Indices and Convergent Validity Indicators for the student teachers' Learning Outcomes Questionnaire

Model Fit Indices / Convergent Validity Indicators	Value
$\chi^2$	94.954
df	32
$\chi^2/df$	2.967
RMSEA	0.077
CFI	0.98
NFI	0.971
TLI	0.937
IFI	0.981
MCS	0.96-1.00 (AVE: 0.790, CR: 0.938)
PCS	0.99-1.00 (AVE: 0.758, CR: 0.926)
SDS	0.96-1.00 (AVE: 0.737, CR: 0.848)

Table 6 presents the fit indices and convergent validity indicators for the student teachers' Learning Outcomes Questionnaire, showing a good model fit with  $\chi^2/df = 2.967$ , RMSEA = 0.077, CFI = 0.98, NFI = 0.971, TLI = 0.937, and IFI = 0.981. The average variance extracted (AVE) values for all factors (MCS, PCS, and SDS) are above 0.7, and the composite reliability (CR) values exceed 0.8, indicating strong convergent validity. Table 7 shows the discriminant validity, where the square root of each factor's AVE (diagonal values) is greater than its correlation with other factors (off-diagonal values), confirming good discriminant validity for the questionnaire.

Table 7: Discriminant Validity of the student teachers' Learning Outcomes Questionnaire

	MCS	PCS	SDS
MCS	0.889		
PCS	0.839	0.871	
SDS	0.731	0.813	0.858

### III. Research Results

#### 3.1 Regression Analysis Results

The regression analysis results indicate that the learning experience scores of student teachers in student support, clear goals, and appropriate assessment are significantly correlated with the three dimensions of learning outcomes. Specifically, teaching quality significantly affects the moral cultivation and self-development of student teachers, while course organisation is significantly associated with their professional competence, as shown in Tables 8, 9, and 10.

Regression analysis was chosen because it provides a systematic way to quantify and understand the relationships between different learning experience factors and the learning outcomes of student teachers. This method is effective in identifying significant predictors of success in meeting accreditation standards, while controlling for the influence of other variables. Additionally, regression analysis is well-suited for handling complex data with multiple variables, allowing for an exploration of the underlying mechanisms that connect learning experiences to student outcomes.

Table 8: Summary of Regression Analysis on Learning Experience and Moral Cultivation

Model	B	Standard Error	Beta	t	Tolerance	VIF
(Constant)	0.790	0.206		3.839***		
COS	0.099	0.051	0.111	1.939n.s.	0.398	2.515
TQS	0.132	0.054	0.139	2.459*	0.406	2.463
LCS	-0.015	0.030	-0.019	-0.511n.s.	0.916	1.092
SSS	0.220	0.059	0.226	3.726***	0.355	2.820
AAS	0.121	0.054	0.122	2.226*	0.430	2.323
CGS	0.285	0.057	0.281	5.019***	0.416	2.405

R = 0.763a, R<sup>2</sup> = 0.581, Adjusted R<sup>2</sup> = 0.574, F = 74.548\*\*\*, Durbin-Watson = 1.988

Note: n.s. = p > 0.05, \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

Table 9: Summary of Regression Analysis on Learning Experience and Professional Competence

Model	B	Standard Error	Beta	t	Tolerance	VIF
(Constant)	0.817	0.185		4.415***		
COS	0.097	0.046	0.114	2.106*	0.398	2.515
TQS	0.058	0.048	0.065	1.206n.s.	0.406	2.463
LCS	0.000	0.027	0.000	0.006n.s.	0.916	1.092
SSS	0.256	0.053	0.276	4.809***	0.355	2.820
AAS	0.146	0.049	0.156	2.990**	0.430	2.323
CGS	0.289	0.051	0.300	5.661***	0.416	2.405

R = 0.790a, R<sup>2</sup> = 0.624, Adjusted R<sup>2</sup> = 0.617, F = 88.956\*\*\*, Durbin-Watson = 1.875

Table 10: Summary of Regression Analysis on Learning Experience and Self-Development

Model	B	Standard Error	Beta	t	Tolerance	VIF
(Constant)	0.817	0.185		4.415***		
COS	0.097	0.046	0.114	2.106*	0.398	2.515
TQS	0.058	0.048	0.065	1.206n.s.	0.406	2.463
LCS	0.000	0.027	0.000	0.006n.s.	0.916	1.092

Model	B	Standard Error	Beta	t	Tolerance	VIF
SSS	0.256	0.053	0.276	4.809***	0.355	2.820
AAS	0.146	0.049	0.156	2.990**	0.430	2.323
CGS	0.289	0.051	0.300	5.661***	0.416	2.405

R = 0.734a, R<sup>2</sup> = 0.538, Adjusted R<sup>2</sup> = 0.529, F = 62.520\*\*\*, Durbin-Watson = 1.746

From the perspective of moral cultivation, clear goals, student support, and appropriate assessment significantly influence this dimension of learning outcomes. Specifically, each unit increase in students' satisfaction with clear goals leads to a 28.5% increase in their moral cultivation score, and each unit increase in satisfaction with student support raises the score by 22%. Appropriate assessment and teaching quality also significantly impact moral cultivation, with each unit increase in satisfaction with appropriate assessment and teaching quality corresponding to a 12.1% and 13.2% increase in moral cultivation scores, respectively.

From the dimension of professional competence, clear goals, student support, and appropriate assessment have a significant impact on the professional competence of student teachers. Specifically, each unit increase in satisfaction with clear goals corresponds to a 28.9% improvement in professional competence. Similarly, each unit increase in satisfaction with student support results in a 25.6% increase in professional competence scores. Appropriate assessment and course organisation also significantly influence professional competence, with each unit increase in satisfaction with appropriate assessment and course organisation leading to a 14.6% and 9.7% increase in professional competence scores, respectively. From the dimension of self-development, clear goals and student support have a significant impact on the self-development of student teachers. Each unit increase in satisfaction with clear goals leads to a 28.7% increase in self-development scores, while each unit increase in satisfaction with student support results in a 21.7% improvement. Additionally, appropriate assessment and teaching quality significantly affect self-development, with each unit increase in satisfaction with appropriate assessment and teaching quality corresponding to a 13.4% and 17.5% increase in self-development scores, respectively.

### 3.2 Qualitative Research Analysis

Based on the regression analysis results, an interview guide was developed, and in-depth interviews were conducted with 12 government-funded student teachers to explore the intrinsic mechanisms through which various factors of learning experience influence learning outcomes. The findings reveal that teacher education programs face several challenges, primarily in three areas: the combined effect of misaligned learning goals and simplified exam content impedes the improvement of learning quality; the fragmentation of the disciplinary system and structural shortages in teacher resources hinder the distinctiveness of teacher education; and an imbalance between increasing learning challenges and insufficient student support hampers the development of professional competencies.

#### 3.2.1. The Combined Effect of Simplified Exam Content and Misaligned Learning Goals Impedes Quality Improvement

Goal-setting theory posits that goals themselves have a motivating effect, transforming needs into motivation, guiding behavior towards certain directions, and allowing individuals to adjust and correct their actions against established goals to achieve them [14].

*"... [Teachers] tell us what we should learn this week, what experiments to do, and let us prepare in advance, so we follow the schedule every week... I think this is great because it clearly shows us what to learn and when, so we aren't lost about what's coming next, like being in the dark. This approach makes our goals clearer." (S-F-5)*

*"... The learning guide is very helpful because I lack clear personal learning goals. Having set goals and tasks really helps me, as I then know exactly what to do... After each class, we get the learning guide for the next class, and we prepare and discuss in advance." (L-F-2)*

In their daily studies, student teachers generally have clear learning goals; however, these goals are often reduced to simply "passing exams," a problem that is particularly pronounced in educational theory courses. In assessments, especially final exams, an overemphasis on basic and memorization-based content neglects deeper understanding and the flexible application of theoretical knowledge, leading to misaligned learning goals among student teachers.

*"... For theoretical courses, most students cram a lot of content just a few days before the final exam. We just focus on key points and memorize them, which often allows us to pass easily." (L-F-1)*

*"... I think the assessments are mostly about memory; you can just memorize questions from a test bank or key points from the slides." (S-M-4)*

This can be seen as a "pragmatic" form of compromise: on one side, teachers use memory-based assessments to ensure pass rates, and on the other, students have a clear and relatively easy path to obtain good grades and compete for various awards. In this scenario, teachers and students seemingly collaborate in a "grand performance" under the guise of classroom teaching, which external evaluation systems praise. However, the students, as the "performers," are keenly aware of its deceptive nature:

*"... For most teacher education-related courses, if there is a goal, it's probably just not failing or aiming for a score above 80. If there is a learning goal, it's mainly just to get a good grade." (S-M-4)*

*"... We often look for key points and summaries online or take fast-track courses for general subjects... These fast-track*

*courses help us pass; they teach us how to solve problems, like saying one plus one equals two, but without understanding why. We know the steps to get the answers, even if we don't understand the reasoning, which is enough to earn points... In class, we learn very little content and mostly rely on fast-track courses. However, the teacher may simplify the exams significantly to ensure everyone passes, even making it so easy that someone who didn't study could still pass." (S-F-5)*

student teachers are aware that they are the real victims of this "teaching performance," and they wish to be motivated by clear goals to pursue deeper learning and self-improvement, rather than merely achieving grades. However, faced with the pressure of various award and recognition criteria, they often embrace "passing exams" as their learning objective, leading to a misalignment between course learning goals and the intended training objectives. Consequently, the quality of learning among student teachers remains difficult to improve.

### 3.2.2. Fragmentation of Disciplinary Systems and Structural Shortages in Teacher Resources Hinder the Distinctiveness of Teacher Education

Within teacher education programs, certain educational theory courses face criticism due to their complex content, monotonous teaching methods, and disconnect from practical application [15][16]. These issues are not inherent but arise during the construction process, and similar problems exist within the curriculum of education majors. However, they are seldom identified as urgent matters to address, mainly due to the unique "dual-professional" integration of teacher education programs, which combines subject expertise with educational theory [17]. For student teachers, education represents an additional disciplinary system that requires adaptation and mastery, and the gap between these two systems is a significant barrier to learning educational theories.

"When taking these courses, it's often difficult to integrate them with our main subjects... It feels like the educational courses have their own separate system that doesn't really connect with our courses... Teachers rarely incorporate our majors into their teaching... It's like studying two different majors." (L-F-4)

*"Courses like education and developmental psychology are part of our curriculum every semester... To be frank, these courses feel like filler to me... There are too many professional concepts to remember, and they are too profound, especially with topics like various psychologies that are hard to grasp... We already have our subject courses, and now we have to also make sense of another theoretical system, which is quite challenging." (S-F-5)*

"Generally, no one pays much attention to them; most of our focus is on the subject courses because everyone feels that as long as we pass, it's fine, and these won't really be used in the future..." (L-F-3)

To help student teachers better cope with the challenges posed by the gap between disciplinary systems, teachers, as classroom leaders, must understand their students' thinking and provide effective guidance, connecting professional knowledge, teaching practice, and relevant theories. However, the reality faced by teachers makes this requirement difficult to meet. This difficulty can be partly attributed to the time and energy consumed by research and administrative duties, but another critical factor highlighted by respondents is the number of students under a teacher's charge. Generally, smaller class sizes correlate with higher teaching quality, which is why many significant university rankings use the student-to-teacher ratio as a key indicator. Some studies suggest a negative correlation between the student-to-teacher ratio and student academic performance [18]. A higher student-to-teacher ratio, given limited educational resources, makes it more challenging to ensure teaching quality because a teacher's capacity and energy are finite [19]. Education is an activity of intellectual and cultural exchange between individuals [20]. Dialogue is essential for this exchange, and a reasonable class size is crucial for teachers to engage deeply with students and understand their learning styles. However, due to the shortage of qualified teachers, education courses are often taught in large classes, leading to a degree of intentional or unintentional neglect of students' understanding and mastery of knowledge.

*"In the first and second years, we had many teacher education theory courses, such as those starting from child psychology. Honestly, I didn't pay much attention; one teacher would teach two or three classes together... Now, in the third and fourth years, we have more theory courses, but we don't know the grades for each assignment or what's good or bad about them. It might be because there are too few teachers, and they are busy with other responsibilities, so they don't have time for us." (S-F-8)*

*"... Some theories are too advanced for us, and we barely grasp them. If you ask me now about Maslow or Piaget, I might recognize the names but not what they said... The content is highly specialized, and when the teacher explains it, it's hard for us to absorb. Many teachers don't seem to consider this; they teach, we listen without fully understanding, and that's how it goes." (S-F-6)*

*"... The courses feel pointless, like a waste of time. I think the teachers don't enforce discipline, nor do they improve their teaching methods, which just wastes students' time." (A-M-1)*

Aside from individual factors related to teachers, structural shortages in teacher resources also contribute to these issues. Typically, there is a sufficient number of expert professors responsible for subject-specific courses in each department, but the resources for teacher education are relatively scarce. Coupled with the gap between disciplinary systems, this imbalance results in a general tendency to prioritize subject-specific courses over teacher education courses, diminishing the distinctive features of teacher education.

### 3.3.3. Imbalance Between Increasing Learning Challenges and Insufficient Support Hinders the Development of Professional Competence

The reasonableness of learning challenges, particularly their role in promoting student development, can be partly explained by Vygotsky's "Zone of Proximal Development" theory: the essential feature of teaching is not "training" or "strengthening" already developed internal psychological functions, but rather stimulating and forming those that are not yet present. Research shows a linear relationship between performance and goal difficulty when individuals have sufficient ability and willingness to achieve the objectives; the harder the task, the better the performance, as people adjust



their effort levels according to the task's difficulty [21]. This implies that the educational environment should provide appropriate challenges to foster continuous student progress [22]. With the exponential growth of knowledge in the information age and the general rise in educational attainment, the volume of professional courses for student teachers has been increasing, resulting in progressively higher learning challenges.

*"... In our major, aside from the required courses, there are also elective courses with a credit requirement. I heard the next batch will have even more; they will have to take many courses, filling up all weekdays and even some weekends with morning and afternoon classes. The workload is quite heavy." (S-M-4)*

*"... Due to the excessive scheduling of class hours, participation in extracurricular activities like volunteering, learning, competitions, and leisure is heavily impacted, with most of the time spent attending classes. Review and preparation time is significantly compressed... Having too many classes reduces free time, pushing review tasks to the end of the term, which greatly affects the quality of review and learning outcomes." (L-F-3)*

While learning challenges that do not exceed a student's "Zone of Proximal Development" are widely recognized for their positive impact on further development, if the new content that students need to learn and understand is excessive and cannot be mastered within the available time, it may impose a psychological burden and reduce learning quality. Sanford's challenge-support theory suggests that education's role is to identify challenges that stimulate new development without overwhelming individuals to the point of regression [23]. Therefore, the university environment must also provide necessary support to help students effectively meet these challenges. However, support for student teachers remains insufficient, particularly in areas such as academic resource availability and feedback on learning progress.

*"... It often feels inadequate, especially with older literature, like works from the 1980s and 1990s. Sometimes we need to reference these, but they aren't available on common databases; they are only on gStore, which teachers haven't taught us how to use. It feels quite inconvenient." (S-M-3)*

*"... After submitting assignments, teachers rarely provide feedback. They leave it to students to comment on each other's work, offering little standard or insight, so we don't get that 'aha moment' that teachers should facilitate... This applies to courses like teaching design or lesson analysis; the teacher sets activities but doesn't emphasize evaluation or provide much feedback." (S-F-8)*

The "Zone of Proximal Development" theory introduces the concept of "scaffolding," which emphasizes the need to provide appropriate support alongside suitable challenges. Effective student support can enhance learning efficiency and provide students with the motivation to complete challenging tasks. Adequate student support services are critical to ensuring the quality and efficiency of learning [24]. If student teachers consistently face substantial learning challenges without sufficient support, they may experience increasing anxiety, frustration, and even aversion to learning and research.

#### **IV. Conclusions and Recommendations**

##### **Conclusions**

The analysis reveals that the moral cultivation, professional competence, and self-development of student teachers are significantly influenced by the clarity of learning goals and the effectiveness of course assessment methods. However, in practice, the learning goals of some teacher education theory courses are misaligned, focusing solely on "passing exams," leading to simplified exam content and a perfunctory attitude among students toward these courses. Moreover, satisfaction with teaching has varying degrees of impact on the three dimensions of learning outcomes, but teachers often struggle to fully realize their roles due to large class sizes, making it difficult for students to overcome the challenges posed by the separation between disciplinary systems. Lastly, while satisfaction with student support significantly affects learning outcomes, the study indicates that in highly challenging environments, the learning support provided to students remains insufficient and ineffective. These issues hinder student teachers from meeting the corresponding requirements. To improve the current state of teacher education and fully leverage the impact of professional accreditation on enhancing the quality of normal student training, the following three strategies are proposed:

##### **4.1 Use Professional Accreditation as an Opportunity to Reform Teacher Education Curriculum**

The pursuit of truth and self-improvement is inherent to human nature. University curricula should provide students with clear learning goals that foster self-improvement, fulfilling student teachers' intrinsic desire for knowledge and progress. Current teacher education courses do have such learning objectives, but they are often obscured or replaced in practice, primarily due to a lack of effective quality assurance measures. Under the framework of teacher education accreditation, which emphasizes aligning course design with training objectives and focuses on student learning experiences, universities should first establish a reasonable and clear system of training objectives based on their institutional mission, conditions, and the demands of societal talent. This will provide a solid foundation for curriculum development. Universities should then strategically introduce and adjust courses according to these objectives, simplifying and integrating underperforming teacher education theory courses, and aligning each course type with specific training goals. Guided by accreditation requirements, an internal quality assurance system centered on ensuring that students meet graduation requirements should be established, continuously improving and providing students with clear and valuable learning goals.

##### **4.2 Develop a High-Level Teaching Faculty and Optimize Teacher Resource Structure**

Teacher education programs are unique in their integration of subject expertise and educational theory, known as "dual-professionalism" [25]. Achieving this integration requires not only appropriate courses but also adjustments in faculty structure and teaching quality. Teacher education accreditation emphasizes that faculty structure should align with the training goals of student teachers and that teachers should be effectively involved in both education and practice [26]. Given the context of large class sizes in teacher education courses, enhancing teacher-student interaction and educational

effectiveness depends on addressing structural shortages in teacher resources.

Firstly, building a high-level teaching faculty is essential, which requires optimizing hiring mechanisms and emphasizing comprehensive quality as a key criterion, balancing research capabilities with practical teaching and mentoring skills. Secondly, a long-term mechanism should be established to ensure a stable and well-qualified faculty for teacher education courses, providing robust support for improving teaching outcomes. Lastly, adjustments in faculty structure should be based on training goals, with courses being the vehicles for achieving these goals. Therefore, faculty structure should align with the curriculum system, assigning course leadership to teachers whose strengths best match the course characteristics. This course-oriented faculty structure enhances the precision, implementation efficiency, and quality of both subject-specific and teacher education courses, thereby highlighting the distinctive features of teacher education.

#### 4.3 Enhance student support Services to Create a Quality Training Environment

Under the requirements of teacher education accreditation, clear training goals, appropriate course organisation, and excellent faculty make courses more challenging for student teachers, necessitating a comprehensive support system to foster their growth and development. Enhancing the student support service system should focus on both "academic research" and "education and teaching."

In academic research, attention should be paid to expanding databases to support students' research activities. Additionally, institutional safeguards should be strengthened to ensure that students have access to integrated research activity information and participate effectively in academic research. A tiered learning community based on research projects should be established to provide basic, high-quality academic training for student teachers, tailored to their academic level and research abilities.

In education and teaching, the focus should be on monitoring and ensuring the effective implementation of process-based evaluation. Teaching itself is a process-driven endeavor, rich with unforeseen 'added value' and meaningful 'derivatives' [27]. The unpredictability of the future underscores the creative nature of the learning process, which constitutes its appeal, significance, and potential for development [28]. Therefore, evaluating the learning process of student teachers allows for the discovery of internal growth points, offering students the opportunity to receive timely, specific, and effective feedback. This clarity helps students understand their position and direction in the learning journey, allowing them to adjust, refine, and enhance their learning and thinking activities, leading to continuous growth and improvement.

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