Assessing and Improving the Quality of Undergraduates in Preschool Education Programs in China: The Course Experience

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Abstract: This study investigated the current status of course satisfaction among 416 undergraduate students majoring in preschool education from four universities in China.And it explored the predictive effects of five influencing factors(teacher instruction, course management, course setting, course environment, and course resources)on student satisfaction.Through SPSS data analysis, the findings revealed that: 1. the mean value of course experience was M=3.861 (out of 5); 2. there were differences in the satisfaction of undergraduate students' course experience by different background variables; 3. course, course resources, and loyalty had significant predictive power on undergraduate students' satisfaction with course experience; 4. instructor instruction (TI) did not significantly predict students' satisfaction with course experience (SCES) (p> 0.001); 5. Faculty instruction (TI) in this study had the highest mean satisfaction score (M = 4.191) and the mean satisfaction score was only (M = 3.861). The results show that the current status of course satisfaction among Chinese preschool undergraduates is at an moderate level, and there is more space for improvement; although students' satisfaction with teacher instruction (TI) is high, effective teacher instruction does not have a substantial impact on the acquisition of SCES or general competencies, and this passive learning and teaching style leads to a lack of independent learning and active participation among Chinese preschool undergraduate students.

Keywords: Higher education; Preschool education program; Satisfaction; Course experience.

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1.1 Introduction

As China advances its strategy for high-quality development, various sectors of society have come to realize that preschool education remains a vulnerable aspect within China's education system, and the level of its development will significantly impact the formation of a high-quality education system in China. Consequently, strengthening the foundation for the development of preschool education and ensuring its healthy progress holds crucial guiding significance for China's endeavors to establish a high-quality education system(Deng, 2023).

From the perspective of customer satisfaction theory,this study treated the five influencing factors of course experiences offered to pre-school education majors by four undergraduate universities in China as products, with the undergraduate students in pre-school education programs regarded as customers. By allowing students to rate their experiences with five influencing services related to school course experiences , the quality of pre-school education teachers trained by universities could be improved. thereby ensured the healthy development of the entire pre-school education system.

Currently, there are issues in preschool education at various levels, including educational resources, education quality, teachers , student employment, and management systems, which seriously hinder the healthy development of preschool education. Therefore, in order to better address these specific issues at these levels, this study conducts a questionnaire survey to understand the satisfaction of preschool education majors with their course experience. This not only helps improve the quality of education in the field of preschool education and cultivate talents in the education sector, but also better meets the needs of children and promotes comprehensive social development(Pan et al., 2022).

1.1.1 Quality of Undergraduate Education in China

Currently, China's higher education gross enrollment rate is close to 50%; higher education has entered the universalization stage (Liu, 2022); higher education has experienced a significant quality decline; and various stakeholders have expressed concerns about the quality of higher education (Jiang, 2004); and in response to these changes and concerns, the Chinese Ministry of Education initiated the Undergraduate Teaching Evaluation (UTE) program in 2003. As a quality control measure for higher education in China, the Higher Education Evaluation Center was founded and implemented nationally in 2004.

However, it has become quite challenging to define quality in higher education. Most people think quality is a multidimensional idea that cannot be defined or measured in absolute terms and must be looked at from the perspective of relevant stakeholders and some standard or benchmark (Bloch et al., 2021).

Early childhood education, which also serves as the foundation for lifetime learning, is an essential component of primary education that can have a significant impact on people's short and long-term lives (Barnett, 1995). One of the ten sustainable development goals set forth by the OECD is the development of preschool education, which is also a sub-goal of the sustainable development goals of the UNESCO "2030 Framework for Action on Education"(Chen et al., 2021). Other nations, including France, the United States, Japan, and Norway, have strengthened the early childhood teacher workforce through improved legal and financial systems. According to several studies, all factors significantly influence a child's development, including the professional competency of early childhood teachers (Vinogradova, 2012). The growth of early childhood children is substantially connected with early childhood teachers' qualities (academic credentials, expertise in early childhood education, experience, and training) (Wang et al., 2020). Early

childhood education is essential to increase a nation's human capital. The 19th Congress of the Communist Party of China passed a crucial resolution to maintain a high standard for early childhood education (Wang et al., 2020). Early childhood education is a crucial component of China's education reform.

In the last 30 years, quality assurance (QA) in higher education has spread around the globe (Duque, 2021), strengthening and deepening educational assessment operations. Assessment is the main technique used in the management activity of high educational quality assurance. Higher education quality assurance organizations use tools to evaluate the effectiveness of programs at these institutions (Welzant et al., 2011). To ensure the quality of higher education, UNESCO, OECD, and the EU have created different framework systems, action guides, and regulations and standards. UNESCO stresses policy advice, the OECD promotes multidimensional integration, and the EU emphasizes quality evaluation when it comes to the meaning and goals of quality assurance (Chen et al., 2008). Today, more than half of the nations in the world employ quality assurance as a management and policy instrument. A quality evaluation of undergraduate education has also been seen in China as essential to ensuring the quality of higher education.

Student satisfaction is one of the essential output indicators for assessing the quality of education since students are stakeholders in the education process (Yorke, 1999). The degree of student satisfaction is one of the essential measures of educational quality (Zineldin et al., 2011); numerous nations, including the United States, the United Kingdom, and Australia, have carried out some national surveys to evaluate how undergraduate students perceive the value of higher education and their educational experiences. These national surveys concentrate on student engagement, students' course experiences, or their opinions of the value of the faculty's instruction. With the help of these national survey methods, quality assurance systems for higher education worldwide have learned how important student engagement is for figuring out the quality of undergraduate education.

The quality assurance of undergraduate education in China is mainly led by the undergraduate education consortium led by the Ministry of Education. Previous evaluations have ignored student engagement, student learning, and the current status of the course (Lee, et al., 2012; Mohrman et al., 2011).

Few attempts have been made in the worldwide literature to connect two study strands on the quality of undergraduate education (i.e., students' course experiences and engagement) (Yin et al., 2016). Therefore, this study examines the course experiences of 416 undergraduate preschool education students from their experiences to assess the quality of undergraduate preschool education programs in China.

1.1.2 Theory

Educational quality assessment and course evaluation

Based on how satisfied students are with their education, higher education institutions can gauge the quality of their instruction. Internationally, the higher education sector has heavily utilized student evaluations on instructor quality for decades. One of the most well-known tools for gathering feedback on university teaching and learning quality is the Course Experience Questionnaire (CEQ). Its goal is to record student assessments of the quality of the instruction as a comprehensive performance indicator of the calibre of university degree programs (Ramsden, 1991).

In the 1940s, Tyler formally proposed the theory of course evaluation, becoming one of the significant research results in educational management. Tyler's theory of course evaluation is a goal-oriented evaluation model, which considers course evaluation as a comparison between the predetermined course teaching objectives and the effects achieved in the actual implementation process to discover the degree

of achievement of the expected objectives and to carry out the course management improvement process. A.V. Kelly, a British education specialist, sees course evaluation as the process of assessing the value and effectiveness of a particular educational activity (Kelly, 2009); Lawton points out that course evaluation is the process of receiving, obtaining, and exchanging information and directly guiding course decisions (Lawton, 2012). All three definitions above consider course evaluation as providing information for decision-making. In China, on the other hand, course evaluation is seen more as a value judgment activity.

In conclusion, the definition of "course evaluation" is a broad one that considers the fact that it is an evaluation of the value of the course and that the evaluation results are essential feedback for improving the course. It also considers that multiple subjects are involved in the evaluation activities.

Student Evaluation

Countries all around the globe have recently adopted the Student Survey Evaluation to develop and implement teaching quality evaluations globally (Herbert et al., 2022). According to research, Student Survey Evaluation scores are more valid and reliable than any other source (Grammatikopoulos, 2015), and utilizing student survey input to improve university quality leads to higher levels of student satisfaction (Anderson et al., 2020). Higher quality results in higher student satisfaction, more students, more confidence in the institution, better research and information dissemination, and lower student recruitment costs. As a result, student assessment of the course (i.e., assessing instructors, course material, classrooms, or anyone and everything associated with the course) is a complicated process that takes into consideration some criteria and incorporates some techniques and tools (Nicolaou, 2019).

Student Satisfaction

Along with the concept of customer satisfaction, which Philip Kotler defines as the perception of the actual effect of all products an organization offers compared to the consumer's expectations, the concept of student satisfaction was developed in the 1960s (Kotler, 1997). Oliver, (1997) says that customer satisfaction is a psychological reaction in which people judge the effects of products and services based on how well they meet their needs.

Student satisfaction is a subjective evaluation of how much students feel their education meets their needs compared to other students' educations. Individuals have diverse opinions on student satisfaction, and different academics hold different views. Western academics feel that student satisfaction is the expression of how satisfied college students are with their education. This active expression is a consequence of students' natural desire to feel satisfied with the teaching environment, facilities, and effectiveness of the school; it also reflects students' expectations that their college experience will be fulfilling or that they will receive higher education than expected; and it reflects students' positive feelings, such as attachment, pride, and honour towards their school. According to Chinese academics, satisfaction is a general evaluation and perception of all the services received by students in colleges and universities with emotional content (Yang et al., 2003); student satisfaction is also a psychological feeling of students after comparing various educational services provided by schools with students' expectations (Han, 2018).

A summary of earlier research findings states that student satisfaction refers to college students' subjective perceptions of the various educational and instructional services offered by the university. This includes how the students feel psychologically after contrasting their actual perceptions of the services with their initial expectations.

1.1.3 Factors affecting Students' Course Experience Satisfaction (SCES)

Students' satisfaction with their course experience

is influenced by all aspects of higher education and the social environment, not just the course itself. As a result, it is essential to consider all variables affecting how satisfied students are with their course experience. According to the existing research scholars, scholars generally believe that teachers' teaching attitude, teaching content, and teaching methods affect students' satisfaction with their course experiences (Jiang, 2004); teachers' professional knowledge reserve is also one of the factors affecting students' satisfaction with their course experiences (Yang, 2009); At the teacher education level, elements determining course experience satisfaction include the college instructors' education and if they have dual-teaching professors. Furthermore, elements like the course structure (Ying, 2007), the course ratio (Chen, 2008), the course adjustment as needed and appropriate, the way the course is selected, the applicability of the course, the method of course assessment, the sequence of course delivery and the choice of the textbook (Yin, 2000), the number of courses, course levels, and the course content , and other elements like the arrangement of elective and required courses (Pu, 2013) can affect students' satisfaction with their course experience.

While learning resources, the location and conditions of the internship site, activities that help students develop their professional skills, and the school's hardware and software environments (learning atmosphere, class attendance), which meet the actual needs of students, are also important (Qin et al., 2011). and some studies have shown that student loyalty leads to higher levels of student satisfaction.

Therefore, the elements that affect the course experience are divided into six categories in this study: teachers' instruction (TI), course administration (CA), course setting (CS), course environment (CE), course resources (CR), and students' loyalty (ST).

1.1.4 Purpose of the study

This study investigated the relationship of the Students' Course Experience Satisfaction(SCES) in teacher instruction(TI), Course Administration(CA), Course Setting(CS), Course Environment(CE), Course Resources(CR),and Students' Loyalty(SL). Specifically, it addressed the following two questions: (1) What is the impact of Chinese preschool education undergraduates' course experience on their satisfaction? (2) Variability in the impact of students' course experiences on satisfaction across different background variants.

1.1.5 Model

The research model for this study is as shown:

1.2 Material and methods

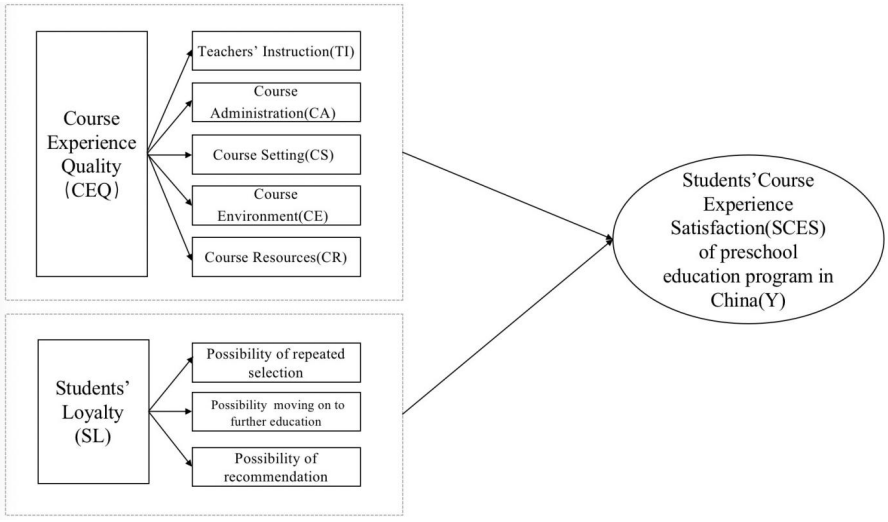

Figure 1: Course experience research model

1.2.1 Participants

According to the purpose of this study, a total of 416 students were selected as the sample(Wu,2000). The sample for this study was drawn from four full-time universities in two provinces in northern and southern China: Beijing and Guangdong Province; two were teaching universities, and two were research universities. In 2022, 416 students in their freshman to senior years at these four universities participated in this study and returned 416 valid questionnaires. Considering the representativeness of the sample, this study adopted a stratified proportional sampling method, randomly selecting 26 students from each grade (freshman to senior) at each of the four universities, resulting in a total of 416 students being surveyed.Of this sample, 208 students (50%) were students at research universities, and 208 students (50%) were from teaching universities.

1.2.2 Instruments

Course Experience Questionnaire(CEQ)

In order to evaluate the teaching conditions, teaching process, and teaching effectiveness of the preschool education program undergraduates' course experience, as well as the connection between the course experience and students' professional perspectives and learning attitudes, this study drew on the CEQ criteria to develop the "Chinese Preschool Education Undergraduates' Course Experience Questionnaire." with five aspects of the course experience, including Teachers' Instruction(TI) (six items) (Pu, 2013); Course Administration(CA)(six items) (Yin, 2000; Pu, 2013); Course Setting(CS) (five items) (Ying, 2007; Chen et al., 2008); Course Environment (CE) (four items) (Han, 2017); and Course Resources (CR) (four items) (Taraban et al., 2012).

Overall Satisfaction Scale (OSS)

To measure the Students' Course Experience Satisfaction(SCES) of universities, some researchers advise using the following metrics: "satisfaction with competing universities," "satisfaction with personalized needs," and "the program is generally satisfactory" (Sun, 2016).

Student Loyalty Scale (*SLS*)

Cremer and Brown identified three main types of customer loyalty: behavioural loyalty, which refers to consumers' repeated purchase behaviour; intentional loyalty, which refers to consumers' potential purchase intentions over time; and emotional loyalty, which refers to consumers' attitudes toward a company, brand, and its products or services(Xue et al., 2005). So, selecting "the possibility of choosing this school again if given a chance; the possibility of choosing this school again if given a chance to move on to further education; the possibility of recommending it to others" (Li, 2006; Yuan, 2006; Tang, 2017)to measure Students Loyalty(SL).

This study used the Likert 5-point scale to measure how satisfied people were with their course experience in an undergraduate preschool education program. The values 1, 2, 3, 4, 5, and 1-5 were given to show that people were very dissatisfied, dissatisfied, generally satisfied, or very satisfied.

1.2.3 Research Hypothesis

Based on the above literature review and research model, the research hypotheses of this study are as follows:

H1.The course experience satisfaction of Chinese pre-school education undergraduates is at a medium level.

H2.There is a significant correlation between the quality of undergraduate pre-school education courses in colleges and universities and students' course experience satisfaction.

H3.Teacher instruction, course management, course setting, course environment, and course resources significantly predicts students' course experience satisfaction.

H4.Student satisfaction has significant predictive power for student loyalty.

1.2.4 Data analysis

In this study, SPSS26.0 was used as a statistical tool to analyze the data using reliability analysis, descriptive statistical analysis, correlation analysis, and regression analysis.

The expectation-maximization approach was used to investigate the missing answer patterns after missing value analysis using SPSS 26.0. The results showed that none of the variables had 5% or more missing values and that the percentage of missing values for the 35 variables ranged from 0% to 3.1%.

The construct validity of the scales was examined using the KMO and Bartlett's tests, and the internal consistency of the subscales was examined using Cronbach's α coefficient. The variations in group means were compared using descriptive statistical analysis. Regression analysis was used to examine the impact of students' course experiences on their satisfaction and the relationship between these factors. Regression analysis is used to look at how the values of variables change over time and to describe and show this relationship in the form of regression equations. These equations can help us determine if one or more sites can explain significant changes in the dependent variable and how well they can do.

1.3 Results

1.3.1 Construct validity and reliability

Reliability analysis of the scale

A reliability study evaluates the scale's dependability and stability. The consistency of the indicators was assessed in this research using Cronbach's alpha coefficient, the most commonly used questionnaire analysis. According to experience, when Cronbach's α <0.7, the scale is seen to have serious design flaws, and the researcher should think about rewriting the scale; when Cronbach's α is between 0.7~0.8, the scale has some design flaws but retains some measure of reliability; the dependability of the scale is seen to be moderately excellent when Cronbach's α is between 0.8 ~ 0.9; it is deemed to be extremely good when Cronbach's α > 0.9.

Table 1, Reliability analysis of each scale(N=416)

Scale	Cronbach's α	sig
CEQ	0.903	.000
SLS	0.839	.000
0SS	0.874	.000

According to Table 1, each satisfaction scale's Cronbach's α value is >0.8(CEQ's Cronbach's α=0.845,sig=0.000;SLS's Cronbach's α=0.738,sig=0.000;OSS's Cronbach's α=0.699,sig=0.000), indicating that the questionnaire had relatively high reliability(Wu,2000). So this questionnaire can well represent the quality experience of Chinese preschool education undergraduates course quality experience.

Validity analysis of the scale

Validity is a measure of how truthful something is; because this study's questionnaire design was based on a synthesis of earlier related studies with minor modifications, this questionnaire has a stronger theoretical foundation and higher content validity.

KMO and Bartlett's test results showed that the reliability of each scale in this study had passed the internal consistency test(CEQ's

Table 2, KMO and Bartlett's test for each scale (N=416)

Scale	Kaiser-Meyer-Olkin The measure of Sampling Adequacy.	Bartlett's test of sphericity		
		Approx.Chi-Square	df	Sig
CEQ	.845	1334.677	10	.000
SLS	.738	645.236	3	.000
OSS	.699	538.115	3	.000

KMO=0.845,sig=0.000;SLS's KMO=0.738,sig=0.000; OSS's KMO=0.699,sig=0.000), means the questionnaire had good validity(Wu,2000), Details of the scales with the KMO and Bartlett's test results, are presented in Table 2.

1.3.2 statistical analysis

(1) Mean value analysis

According to Table 3, it also provides some descriptive analyses of the Course Experience Satisfaction of preschool education undergraduates in China at each scale. The satisfaction of CEQ on teachers instruction(TI) (M = 4.191,SD=0.650) had the highest satisfaction ,while Course Administration(CA) (M = 3.597, SD = 0.747) had the lowest score,and students were also found to rate higher on Course Resource(CR) (M = 3.833,SD = 0.759) and Course Environment(CE) (M = 3.832, SD = 0.712), but lower on Course Setting(CS) (M = 3.734, SD = 0.811).And the OSS(M = 3.861, SD = 0.772) had the highest,while SLS (M = 3.546, SD = 1.012) had the lowest score satisfaction in each scale.

Table 3, Mean value analysis of satisfaction of each scale(N=416)

Scale	N	Mean	Std. Deviation
CEQ	416	3.837	.626
Teachers'Instruction(TI)	416	4.191	.650
Course Administration(CA)	416	3.597	.747
Course Setting(CS)	416	3.734	.811
Course Environment(CE)	416	3.832	.712
Course Resource(CR)	416	3.833	.759
SLS	416	3.546	1.012
0SS	416	3.861	.772

Therefore, H1 is established.

(2) Correlation analysis

Correlation analysis is used to study the relationship between quantitative data, including whether there is a relationship and the degree of closeness of the relationship. According to experience, r>0.7 indicates a very close relationship; r is between 0.4~0.7 indicates a close relationship; r is between 0.2~0.4 indicates a general relationship (Wu, 2000).

The correlation matrix shown in Table 4 indicates that the correlations between the variables were strong (r>0.30, p<0.01), and there were significant positive correlations between the factors for all scales.

Table 4, Correlation matrix, reliabilities and descriptive statistics (N=416).

	TI	CA	CS	CE	CR	SCES	SL
Teachers'Instruction(TI)	1						
Course Administration(CA)	.640**	1					
Course Setting(CS)	.606**	.809**	1				
Course Environment(CE)	.575**	.651**	.630**	1			
Course Resource(CR)	.624**	.624**	.643**	.721**	1		
Students' Course Experience Satisfaction(SCES)	.600**	.656**	.682**	.637**	.715**	1	
Students'Loyalty(SL)	.361**	.431**	.405**	.438**	.430**	.538**	1

*p < 0.05
** p < 0.01 (2-tailed)

Except for the general correlation between CA and TI(r=0.361,p<0.01), the correlations between other factors were strong (r=0.4~0.7,p<0.01), while the correlations between CS and CA(r=0.809,p<0.01) and between CR and SCES (r=0.715,p<0.01) were very strong.

Therefore, H2 is established.

(3) Regression analysis

Multiple regressions on Students' Course Experience Satisfaction (SCES)

The statistical results showed that F corresponded to sig = 0.000, indicating an overall linear relationship between TI, CA, CS, CE, CR, SL, and SCES for Chinese preschool education undergraduates. R2 = 0.650, the model fit was relatively good(Wu,2000), and the explanatory rate of the model reached 65.0%.

Table 5: Multiple regression analysis of the Students' Course Experience Satisfaction (SCES)(N=416)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.184	.155		1.184	.237
	TI	.120	.049	.101	2.434	.015
	CA	.074	.056	.071	1.308	.192
	CS	.220	.050	.231	4.394	.000
	CE	.065	.050	.060	1.292	.197
	CR	.331	.048	.325	6.898	.000
	SL	.161	.026	.211	6.288	.000

a. Dependent Variable: SCES

Y=0.184+0.220(CS)+0.331(CR)+0.161(SL) (1)

According to Table 5, a multiple regression analysis of Students' Course Experience Satisfaction (SCES) in China can be derived as shown in Equation (1), thus.

From equation (1), it can be seen that for every one-unit increase in CS satisfaction, SCES increases by 0.220 units; for every one-unit increase in CR satisfaction, SCES increases by 0.331 units; and for every one-unit increase in SL, SCES increases by 0.161 units, all other things being equal.

Multiple regressions of Students' Course Experience Satisfaction (SCES) among different schools with different professional perceptions and different learning attitudes

As shown by the statistical results, the F-statistic corresponds to p = 0.000, which indicates that there is an overall linear relationship between TI, CA, CS, CE, CR, SL, and SCES among preschool education undergraduates in different universities, different professional perceptions, and different learning attitudes, and R2 = 0.67, the model fits well(Wu,2000), and the explanatory rate of this model reaches 66.7%.

Table 6, Multivariate regression analysis of Students' Course Experience Satisfaction (SCES) for different background variables(N=416)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(constant)	-.022	.174		-.126	.900
	university A	.129	.067	.073	1.923	.055
	university C	-.014	.064	-.008	-.211	.833
	university D	.211	.069	.119	3.074	.002
	generally clear	.029	.067	.014	.437	.662

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	not quite clear	-.079	.075	-.033	-1.059	.290
	not clear at all	.057	.060	.032	.946	.345
	very positive	-.083	.052	-.051	-1.608	.109
	positive	.047	.074	.020	.637	.524
	very negative	.120	.156	.023	.765	.445
	TI	.145	.049	.122	2.960	.003
	CA	.040	.056	.039	.716	.474
	CS	.226	.050	.238	4.506	.000
	CE	.036	.051	.034	.713	.476
	CR	.378	.049	.371	7.635	.000
	SL	.176	.026	.230	6.652	.000

a. Dependent Variable: SCES

Y=-0.022+0.226(CS)+0.378(CR)+0.176(SL) (2)

According to Table 6:

0.129 units higher than University B for SCES in University A, 0.014 units lower than University B for SCES in University C, and 0.211 units higher than University B for SCES in University D.

The SCES with university major awareness is generally clear is 0.029 units higher than university major awareness is very clear, the SCES with university major awareness is not quite clear is 0.079 units lower than university major awareness is very clear, and the SCES with university major awareness is not clear at all is 0.057 units higher than university major awareness is very clear.

The SCES with very positive learning attitudes was 0.083 units lower than that of positive ones, the SCES with negative learning attitudes was 0.047 units higher than that of positive ones, and the SCES with very negative learning attitudes was 0.120 units higher than that of positive ones.

A multivariate regression analysis of Students Course Experience Satisfaction (SCES) with different background variables can be derived as shown in Equation (2) thus:

SCES increases by 0.226 units for every one-unit increase in CS, by 0.378 units for every one-unit increase in CR, and by 0.176 units for every one-unit increase in SL.

Therefore, H3 and H4 are established.

1.4 Discussion

China has always regarded the quality of undergraduate education as the key to quality assurance in higher education. Drawing on the CEQ, this study examined the satisfaction of preschool education program undergraduates in their course experience quality from different schools with different professional perceptions and different learning attitudes, measuring dimensions from teachers' instruction(TI), course administration(CA), course setting(CS), course environment (CE), course resources (CR), and students loyalty(SL). The findings not only add to the findings from the student's perspective but also provide insight into the importance of student engagement as recognized by quality assurance in Chinese undergraduate education. From the results of the study, the overall satisfaction means of the quality of Chinese preschool education program undergraduates' course experience was 3.861 (out of 5), indicating that there is more

space to improve the preschool education program undergraduates' course experience to improve the quality of Chinese undergraduate preschool education.

The results of the regression analysis revealed that the course setting (CS), course resources (CR), and students' loyalty (SL) had significant predictive power ($p<0.001$) for SCES in China. In contrast to just considering the availability of equipment, services, and facilities, students in this study believed that the accessibility and appropriateness of course resources (CR) provided by the university were more potent in terms of improving students' course experience; when it came to the course setting (CS), factors such as the content of the course, the number of courses, and the amount of course time scheduled all had a more significant impact on their satisfaction. This study supports what Lee et al,.(2012) and Liu ,(2012) found: higher levels of student satisfaction are linked to higher levels of student loyalty.

For a long time, instructors have controlled undergraduate education in China (Dunrong et al., 2007), and students are only allowed to use one or two textbooks that professors have suggested for almost every course (Han et al., 2017). The level of Students Course Experience Satisfaction (SCES) is unaffected by the teacher's increased efforts and commitment to teaching. As a result, teachers' instruction(TI) did not significantly predict Students' Course Experience Satisfaction (SCES) ($p>0.001$), a conclusion that was supported by the current investigation. The study's teachers' instruction(TI) average satisfaction score was ($M = 4.191$) highest. The average satisfaction score on the Assessment was only ($M = 3.861$), indicating that effective instruction did not substantially impact SCES or the acquisition of general abilities. This passive learning and teaching style leads to a lack of independent learning and active participation in the undergraduate program.

In addition, this teacher-centred undergraduate teaching approach may cause students to lose interest in engaging in active learning, which would have a detrimental effect on the efficiency of college courses as well as the development of students' general skills and satisfaction with their educational experience. 4.5% of the four hundred and sixteen students who participated in this study said they spent more than 30 hours per week on individual study, while fewer than 10% said they spent less than 10 hours per week on individual study. Up to 53.8% of students reported doing fewer than 10 hours of individual study each week. Due to the unique nature of preschool education, its music, dance, and art course system require much after-school time to improve professional skills. The techniques of course selection, course sequencing, selection of teaching materials, and assessment methods in course administration (CA), on the other hand, do not impact Students' Course Experience Satisfaction(SCES), which overturns the findings of some previous scholars.

As was already indicated, these findings highlight certain distinctive aspects of undergraduate instruction in Chinese higher education institutions. The relationship between students' course experiences in teachers'instruction(TI), course administration(12,) course setting (13), course environment (14), course resource(15), students' loyalty (2), and Students' Course Experience Satisfaction (SCES) is worth exploring carefully. The significance of generic skills for preschool education program students should be emphasized in undergraduate teaching in preschool education, which was examined in this study in a Chinese context and, generally, is also consistent with previous scholarly conclusions (Crawford et al., 1998; Grace et al., 2012; Lizzio, Wilson, and Simons, 2002; Lu, 2007). This research serves as a reminder of the necessity to reevaluate teachers' contributions to university students' learning and the importance of student evaluation in elevating the standard of instruction.

This study has three research constraints. First

of all, owing to geographical disparities in China's nations, the study's sample size is tiny, consisting of just four hundred and sixteen students from four institutions in southern and northern China. Additionally, the accuracy of the results' predictive nature has to be validated in future research. Second, various students have varied expectations for their courses, and future studies should dig further into the psychological makeup of the student body. Third, because students' opinions are personal, there is some bias in figuring out how satisfied students are with their course experience and how accurate the research findings are.

1.5 Suggestion

For teachers' instruction, preschool education is an application-oriented and skill-based major, and students need to improve their comprehensive and practical ability. Therefore, teachers strengthen practical teaching when teaching and try to become dual-teacher teachers; adopt a flexible teaching mode, take students as the centre and guide them to learn actively; in the way of course assessment, focus on the positive significance of practical Assessment, and can combine the examination results with practical Assessment and embedded Assessment to focus on the improvement of students' comprehensive ability and general skills.

For the university administration, the university broadens the theoretical reform of the professional course, moves beyond the conventional educational model, and creates a new system of education that is goal-oriented. With a focus on improving the employment of preschool education students, each university's undergraduate program's purpose and orientation are identified; career planning classes are appropriately expanded; general skill development is prioritized; and students' ability to teach is strengthened through a variety of professional practice activities (Yi, 2021). More consideration should be given to the demands of the students in the course resources offered. Increased education that considers students' requirements may enhance the satisfaction of students' course experiences and the quality of undergraduate teaching in China because student contentment improves loyalty, and loyalty results in higher student satisfaction.

For the individual, before enrollment, preschool students have different levels of university major awareness and prior learning experiences in skill-based courses such as music, dance, piano, and art, which to some extent affect the satisfaction of different students with their course experiences. Since the professional ability and all other aspects of preschool teachers significantly impact early childhood children's development, preschool education undergraduates develop a favourable attitude toward life, values, and career during their university years. Improving professional recognition, professional skills, and professional practices has significant implications for improving the quality of education in China (Lin, 2022).

Through research and analysis, this study holds significant theoretical and practical implications. For the significant theoretical implications in the field of preschool education. Firstly, it deepens the understanding of the unique characteristics of preschool education as an application-oriented and skill-based major, offering a new perspective on the integration of educational theory and practice. Secondly, by exploring the role transformation of teachers in teaching (such as becoming dual-qualified teachers) and the adoption of flexible teaching modes, this study enriches the theoretical system of practical teaching and dual-qualified teacher training in higher education. Additionally, it emphasizes the innovation in course assessment methods, particularly the integration of practical assessment and embedded assessment, providing a theoretical basis for constructing a more scientific and comprehensive evaluation system. Lastly, by

analyzing the influence of students' pre-enrollment professional awareness and prior learning experiences in skill-based courses on their satisfaction with course experiences, this study offers theoretical support for understanding the relationship between individual differences and learning outcomes, further refining educational psychology theories in the field of preschool education.For the practical significance implications. For universities, the suggestions proposed on broadening the theoretical reform of professional courses and creating a new goal-oriented education system can help universities better adapt to the demands of society for preschool education professionals, enhancing the employability of graduates. Meanwhile, by strengthening career planning courses and prioritizing the development of general skills, universities can assist students in better planning their future careers and improving their professional qualities. For teachers, the strategies encouraged in this study for practical teaching and dual-qualified teacher training can enhance teachers' teaching abilities and professional competencies, contributing to the overall improvement of the teaching staff. Lastly, for individual students, the emphasis on professional identity, skills, and practices has significant implications for fostering a positive attitude towards life, values, and careers during their university years, laying a solid foundation for future careers.

Based on the above analysis, efforts to improve the quality of preschool education majors in China can be directed towards the following aspects: strengthening practical teaching and dual-qualified teacher training, innovating course assessment methods, paying attention to individual differences among students, strengthening career planning education, and promoting the optimization of course resources. These efforts will contribute to the development of high-quality education in China.

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Appendix A. The refined instruments used in the study

Students' background

A1.University.

1. China Women's University
2. Capital Normal University
3. Beijing Normal University
4. Zhaoqing University

A2. Awareness of the program (courses to be taken, future career direction)

1. Very clear
2. Generally clear
3. Not very clear
4. Not at all clear

A3.Learning attitude

1. Very positive
2. Positive
3. Negative
4. Very negative

A4. After-school study time (per week)

1.0-10 hours
2.11-20 hours
3.21-30 hours
4.30 hours or more

Course Experience Questionnaire(CEQ)

Teacher Instruction(TI)

B1. How do you feel about the research ability of teachers?

B2. How do you feel about the teachers' academic qualifications?

B3. How do you feel about the teaching methods of teachers?

B4. How do you feel about the teachers' teaching attitude?

B5. How do you feel about the professional knowledge of teachers?

B6. How do you feel about the teachers' practical ability?

Course Administration(CA)

C1. How do you feel about the diversified course structure?

C2. How do you feel about the courses being adapted to your needs?

C3. How do you feel about the way to choose the courses?

C4. How do you feel about the assessment method of the courses?

C5. How do you feel about the sequence of course learning?

C6. How do you feel about the selection of course materials?

Course Setting(CS)

D1. How do you feel about the course structure?

D2. How do you feel about the number of courses studied in the program?
D3.How do you feel about the levels of the courses?
D4. How do you feel about the course content?
D5.How do you feel about the credit arrangement of the courses?

Course Environment(CE)

E1. How do you feel about the environment of the dance room, piano room, and drawing room?
E2. How do you feel about the location of the school?
E3. How do you feel about the learning atmosphere of the university?
E4. How do you feel about the learning atmosphere of the classes?

Course Resources(CR)

F1. How do you feel about the program's quantity and quality of study materials (number of books, network resources, teaching facilities, teaching equipment)?
F2. How do you feel about the internship resources?
F3. How do you feel about the university's special activities (academic lectures, professional skills competition)?
F4. How do you feel about the quality of the teachers in this program?

Student Loyalty Scale (SLS)

G1.The possibility of choosing this school again if allowed to choose again.
G2.The possibility of choosing this school again if allowed to advance to higher education.
G3.The possibility of recommending it to others.

Overall Satisfaction Scale (OSS)

H1.Satisfaction with competing universities.
H2.Satisfaction with personalized needs.
H3.The program is generally satisfactory.