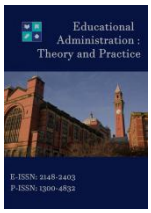
Kuram ve Uygulamada Eğitim Yönetimi
Educational Administration: Theory and Practice
2024, Cilt 30, Sayı 1, ss: 141-159
2024, Volume 30, Issue 1, pp: 141-159
www.kuey.net



Practice and Exploration of International Education Management System under the Background of Chinese-Foreign Cooperation in Universities and Colleges

Jingjng Huang [1*]

Article History

Article Submission
13 April 2022
Revised Submission
10 May 2022
Article Accepted
21 June 2022

Abstract

Chinese universities and colleges have increased worldwide cooperation, necessitating strong international education management systems.The study identifies four variables, including perceived benefits of the Chinese-Foreign Cooperation Program, teaching quality indicators of Chinese-Foreign Cooperation, international education management system quality, and four main hypotheses with supporting evidence. There are 327 college teachers in Shenzhen, China, provided data for the research, which used SEM analysis. The findings show that twelve of the sixteen hypotheses are approved, while the other four are rejected. The study discovered that the Perceived Benefits of the Chinese-Foreign Cooperation Program significantly moderates the relationship between International Education Management System Quality and all four components of Teaching Quality Indicators and that International Education Management System Quality significantly affects all four components of Teaching Quality Indicators. However, the Perceived Benefits of the Chinese-Foreign Cooperation Program significantly modify the relationship between International Education Management Service Quality and two components of Teaching Quality Indicators. International Education Management Service Quality significantly affects three components of Teaching Quality Indicators. These results highlight the value of making investments in the creation of an efficient international education administration system to raise teaching standards and increase the advantages of programs for Chinese-foreign cooperation.

Keywords: International Education Management; Service Quality; System Quality; Teaching Quality Indicators; Chinese-Foreign Cooperation; Resource Input; Faculty Environment; Teaching Process; Teaching Outcome; Perceived Benefits

[1*] *Intermediate Level, International Cooperation and Exchanges Office, Capital University of Economics and Business, Beijing, China, 19873511037@163.com*

Introduction

In recent years, the field of international education has experienced significant growth and increased significance, especially in the context of Chinese-foreign cooperation in universities and colleges (Khamphengvong et al., 2022; Sutter, 2012). New methods and research in global education management systems are now possible because of this collaboration (Lin, 2019). Understanding the importance and effects of international education requires knowledge of the state of the Chinese educational system today as well as the place of education in the larger world (Ngwira & Intravisit, 2023). Numerous advantages come from studying abroad, such as exposure to various cultures, improved language abilities, and more varied employment options (Welch & Xu, 2019). Initiatives for Chinese-foreign cooperation in universities and colleges have recently received a lot of attention in China(Li & Xue, 2022b). The implementation of these programs has made a significant contribution to China's internationalization and higher education promotion(Lin, 2019). As a consequence, successfully managing international education has become a significant challenge for higher education institutions. The goal of this study is to examine how international education management systems are applied in the context of Chinese-foreign cooperation in universities and colleges. Foreign education management systems rely heavily on the quality of services offered as well as the system itself (Turnbull et al., 2020). International education management service quality refers to the system's capacity to deliver exceptional services to international students, while international education management system quality refers to the system's overall quality (Yang et al., 2021).

It is critical to investigate international education implementation in China, particularly the credentials and duties of instructors and tutors involved in delivering international education programs (Zapp & Lerch, 2020). Through different efforts and support mechanisms, the Chinese educational system actively supports students interested in overseas education. Faculty and student exchange programs are critical for increasing global involvement and developing collaborative networks (Demir et al., 2021). Furthermore, for effective program development and implementation, a thorough understanding of the curriculum and syllabus for Chinese-foreign cooperation studies, including credit specifics, is required (Liu & Sayer, 2016). This study intends to contribute to the existing literature on international education management systems by addressing these issues and highlighting the research gap, paving the way for improved practices and better outcomes in this subject.

Teaching quality is a crucial component of the study as well, and it can be assessed using a number of indicators, such as resource input, faculty environment, teaching process, and teaching result (Ramsden, 1991). A crucial moderator variable in the research is the perceived advantages of programs for cooperation between China and other countries. Participants' attitudes and behaviors are greatly influenced by the perceived benefits they receive from Chinese-foreign cooperation initiatives, and these attitudes and behaviors can, in turn, affect how well international education management systems work (Khamphengvong et al., 2022; Sutter, 2012). Prior research has examined the significance of global education management systems, the effectiveness of the classroom, and the perceived advantages of Chinese-foreign collaboration initiatives (Wang et al., 2018). In the framework of programs for Chinese-foreign cooperation, however, only a small amount of study has looked into the relationships between these variables (Khamphengvong et al., 2022). By examining the relationships between these variables and finding the elements that significantly influence teaching quality, this study seeks to close the gap in the literature. 327 college teachers with prior teaching experience in initiatives for Chinese-foreign cooperation are participating in this study, which is being done in Shenzhen, China. SEM, or structural equation modeling, is used to examine the survey's results. In sum, by offering insights into the application and investigation of international education management systems against the backdrop of Chinese-foreign cooperation in universities and colleges, this research adds to the body of existing literature. The study's conclusions can offer advice to Chinese universities and colleges on how to enhance their

international education management systems, the quality of their instruction, and the efficiency of their programs for Chinese-foreign collaboration.

Literature Review

In the current globalized period, international education management has emerged as a crucial field of study (Zapp & Lerch, 2020). A robust and effective international education management system has become required as a consequence of the process of internationalizing higher education and the growth in the number of international students studying abroad (Altbach & Knight, 2007) in order to boost educational standards, develop cross-cultural cooperation, and increase the country's global competitiveness, the Chinese government has fostered Chinese-foreign collaboration at universities and colleges (Gauttam et al., 2021; Li & Xue, 2022a). This review of the literature gives a general overview of the literature on the study's variables, including teaching quality indicators of Chinese-Foreign cooperation, international education management service quality, international education management system quality, and perceived benefits of the program.

International Education Management Service Quality

The perceived quality of the services a facility offers to international students is known as international education management service quality (Ngwira & Intravisit, 2023). Meeting the needs and expectations of international students, who differ from domestic students in many ways, is essential for the institution's internationalization efforts to be successful (Smith, 2020). The variables that impact the quality of international education management services have been the subject of numerous studies (Zapp & Lerch, 2020). For instance, housing, language assistance, and service quality all had a substantial impact on how satisfied international students were with their study experience in China (Ammigan et al., 2021). A similar pattern is also discovered in another study, which shows that international students' happiness with their study experience in Korea was highly influenced by the quality of the services they received, including pre-departure services, campus life support, and academic support (Muslim et al., 2020). In order to draw in and keep international students, institutions must offer high-quality services.

International Education Management System Quality

Education Management System International The quality of the management method that institutions use to oversee their internationalization initiatives is referred to as quality (Hauptman Komotar, 2019). The management system should be created to address the unique requirements of international students and offer them the assistance and services they require to have a good academic career (Martirosyan et al., 2019). Numerous studies have been conducted on the factors that influence the quality of international education management systems. Institutional factors such as resource allocation, leadership, and strategy, for example, had a significant impact on the effectiveness of the internationalization process in Chinese universities (Oliva et al., 2022). Similar findings were found in another study (James & Derrick, 2020), which discovered that corporate culture, leadership, and strategy all had a big impact on how well internationalization went in Chinese higher education institutions. Therefore, a good management system is crucial for institutions to use in order to assist and serve international students effectively.

Teaching Quality Indicators of Chinese-Foreign Cooperation

Indicators used to assess the quality of instruction in Chinese-foreign collaboration programs are referred to as Teaching Quality Indicators of Chinese-Foreign collaboration (Welch & Xu, 2019). The four parts of the teaching quality factors are resource input, faculty environment, teaching process, and teaching outcome (Madani, 2019). A component of resource input is the availability of resources, such as tools and instructional materials. The faculty environment includes teachers' working conditions, as well as their workload and institutional support (Pedro & Kumar, 2020). The teaching process includes the instructional strategies used by teachers, such as active learning and

the use of technology. Evaluation of student learning outcomes is part of the teaching outcomes. Numerous studies have been conducted on the effects of Chinese-Foreign Cooperation on Teaching Quality Indicators. For example, teacher experience, instructional strategies, and student-teacher interaction all had a significant impact on the teaching quality of Chinese-foreign cooperation programs(Swanson & Swanson, 2019). Similar findings were made by Wang et al. (2017), who discovered that the amount of resources available, the workload of teachers, and the techniques used to teach had a big impact on how well Chinese-foreign cooperation programs taught (Liu & Sayer, 2016). In order to give international students an excellent education, the teaching quality in programs of Chinese-foreign cooperation is crucial.

Perceived Benefits of Chinese-Foreign Cooperation Program

The phrase "perceived benefits of Chinese-foreign cooperation program" alludes to the advantages international students believe they will receive from participating in such programs (Ma, 2022). Other studies have investigated the effects of perceived benefits of the Chinese-foreign cooperation program on teaching quality in addition to the influence of the quality of the international education management system on teaching quality indicators (Huang et al., 2023). For instance, students' perceptions of the advantages of international education cooperation programs had a positive impact on their academic success (Hazaymeh, 2021). Similar findings were made by another study (Miller et al., 2021), which showed that student engagement, academic success, and career development were all favorably impacted by the perceived advantages of international education programs. Additionally, a number of studies have looked at how teaching quality indicators in foreign education management are impacted by service quality (Demir et al., 2021). For instance, the level of service provided in the management of international education had a big impact on students' academic success and satisfaction (El Said, 2021). Moreover, positive relationship between service quality in international education management and learning outcomes for students (Teeroovengadum et al., 2019). The study shows that teaching quality indicators in Chinese-foreign cooperation programs are significantly affected by international education management system quality, perceived program advantages, and service quality. The context and features of the programs will determine the kind and extent of these consequences. This study examines the relationships between international education management system quality, perceived benefits of the Chinese-foreign cooperation program, service quality in international education management, and various indicators of teaching quality in Chinese-foreign cooperation programs in China. This research illuminates these relationships to help universities and colleges improve their Chinese-foreign cooperation programs and international education. Figure 1 depicts the study model.

Hypothesis (H1a): International education management system quality significantly affects the resource input component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H1b): International education management system quality significantly affects the faculty environment component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H1c): International education management system quality significantly affects the teaching process component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H1d): International education management system quality significantly affects the teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H2a): Perceived benefits of Chinese-foreign cooperation program significantly moderate the relationship between international education management system quality and resource input component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H2b): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management system quality and faculty environment component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H2c): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management system quality and teaching process component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H2d): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management system quality and teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H3a): International education management service quality significantly affects the resource input component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H3b): International education management service quality significantly affects the faculty environment component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H3c): International Education Management Service Quality significantly affects the Teaching Process component of Teaching Quality Indicators of Chinese-Foreign Cooperation.

Hypothesis (H3d): International education management service quality significantly affects the teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H4a): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management service quality and resource input component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H4b): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management service quality and faculty environment component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H4c): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management service quality and the teaching process component of teaching quality indicators of Chinese-foreign cooperation.

Hypothesis (H4d): Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management service quality and teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.

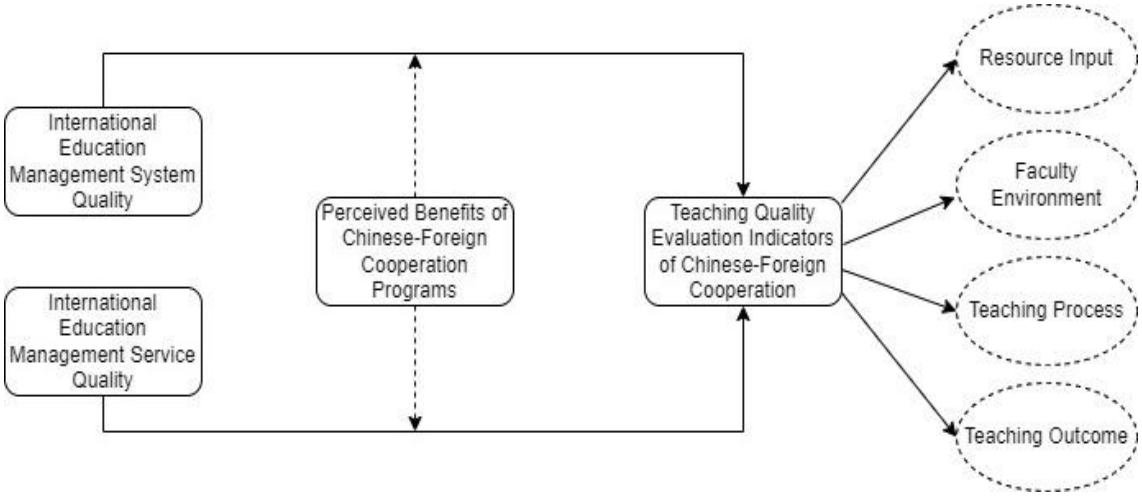


Figure 1. Conceptual Model

Methodology

The current study's goal is to investigate the application and efficacy of the global education management system against the backdrop of international university and college collaboration

between China and other countries. International education management system quality and international education management service quality were found as the study's two independent variables. Teaching quality indicators of Chinese-foreign cooperation was the dependent variable, and it was further broken down into four sub-variables: resource input, faculty environment, teaching process, and teaching outcome. A mediator variable, the perceived benefits of the Chinese-foreign cooperation program, was also included in the research. Through a self-administered survey, the study collected data from 327 college teachers in the Chinese city of Shenzhen using a quantitative research methodology.

The 327 college teachers for this study were chosen using precise inclusion and exclusion criteria. Individuals who were currently working as college teachers in Shenzhen, representing a variety of academic subjects, and having a minimum of three years of teaching experience met the inclusion criteria. This ensured that persons with direct participation in the subject area and relevant competence were included. Teachers who were not actively engaged in international education administration or who lacked relevant expertise were excluded, as were those who had previously participated in similar studies within the previous year. These criteria were intended to provide a representative sample that would illuminate the global education management system in Chinese colleges and universities.

The SEM approach was used to evaluate the collected data. Each of the study's four major hypotheses had four supporting hypotheses. STATA 16 software was used to analyse the survey's results, allowing for the examination of the put-forth hypotheses. To analyse the data, this study has collected data on a five point Likert scale. Different scales from different studies were adopted in this study, for instance, Teaching Quality Indicators of Chinese-Foreign Cooperation (Huang et al., 2023), International Education Management System Quality, and International Education Management Service Quality (Martins et al., 2019), and Perceived Benefits of Chinese-Foreign Cooperation Program (Doyle et al., 2010) scales were used to measure the variables.

The study's results are anticipated to improve Chinese universities' and colleges' management systems for international education and foster better Chinese-foreign cooperation initiatives. Policymakers, educational administrators, and other stakeholders in the field of managing international education are meant to benefit from the study's findings. Finally, the investigation in this study was carried out using STATA SEM, which allowed us to evaluate several statistical measures such as Cronbach's alpha, Average Variance Extracted (AVE), composite reliability, component analysis, multicollinearity concerns, model fit, R statistics, and path analysis.

Results

Before performing the SEM analysis, this study analyzed the demographics of the respondents. Table 1 shows the demographic characteristics of the research participants, who were college instructors from the Chinese city of Shenzhen. The sample included 327 people, with around 52.60% classified as male and 47.40% identified as female.

Table 1. Demographic Information

Indicator	Number of Participants	Percentage
Total participants	327	100.00%
Gender		
- Male	172	52.60%
- Female	155	47.40%

Indicator	Number of Participants	Percentage
Education		
- Masters	274	83.80%
- PhD	12	3.70%
- Other	41	12.50%
Monthly Salary (CNY)		
- 15000 to 25000	165	50.50%
- 25001 to 35000	34	10.40%
- Above 35000	128	39.10%
Age		
- 20 to 30 years old	90	27.50%
- 31 to 40 years old	183	55.90%
- Above 40 years old	54	16.50%

Tables 2 and 3 reflect the findings of a study on the teaching quality indicators of Chinese-foreign collaboration. The study examined a number of factors that influence teaching quality, including resource input, faculty environment, teaching method, teaching outcome, perceived benefits, service quality, and system quality. Cronbach's alpha, composite reliability and average variance were retrieved and employed as reliability and validity measures for the research scales.

Table 2. Cronbach Alpha

	Cronbach Alpha
Faculty Environment	0.8803
Perceived Benefits	0.7931
Resource Input	0.8834
Service Quality	0.8598
System Quality	0.8010
Teaching Outcome	0.8098
Teaching Process	0.7993

Cronbach's alpha values for resource input, faculty environment, teaching process, teaching output, perceived advantages, service quality, and system quality measures were 0.744, 0.87, 0.908, 0.903, 0.684, 0.872, and 0.782, respectively (See Table 2). These numbers suggest that the scales have strong internal consistency, with the exception of the teaching result scale, which has a slightly lower value but is still regarded as adequate. The composite reliability scores of the scales ranged from 0.799 to 0.92, indicating that the measures have strong convergent validity. Even at the lowest value on the instructional process scale, convergent validity is acceptable. The scales' average variation extracted (AVE) values varied from 0.512 to 0.744, showing that they have adequate discriminant validity. The Resource Input scale received the highest AVE score, indicating that it has

the greatest degree of variance that is unique to that construct. The Teaching Outcome scale received the lowest AVE value, indicating that it shares more variance with other components than it does with itself.

Finally, the outcomes of the study show that the scales used to assess instructional quality indicators in Chinese-Foreign cooperation have excellent reliability and validity. The scales are internally consistent, have excellent convergent validity, and accurately differentiate between the categories they measure. The findings can be utilized to identify areas of strength and weakness in teaching quality, as well as to direct efforts to improve teaching quality in Chinese-foreign collaboration.

Table 3. Loadings, composite reliability, and average variance extracted

			Original Sample	**Composite reliability**	**Average variance extracted**
Teaching Quality Indicators of Chinese-Foreign Cooperation	Resource Input	RI1	0.744	0.92	0.744
		RI2	0.812		
		RI3	0.715		
		RI4	0.829		
	Faculty Environment	FE1	0.87	0.914	0.68
		FE2	0.752		
		FE3	0.852		
		FE4	0.778		
		FE5	0.792		
	Teaching Process	TP1	0.908	0.868	0.623
		TP2	0.702		
		TP3	0.893		
		TP4	0.829		
	Teaching Outcome	TO1	0.903	0.87	0.574
		TO2	0.576		
		TO3	0.648		
		TO4	0.67		
		TO5	0.67		
	Perceived Benefits	PB1	0.684	0.847	0.512
		PB2	0.595		
		PB3	0.702		
		PB4	0.843		
		PB5	0.621		
		PB6	0.778		
		PB7	0.785		

			Original Sample	Composite reliability	Average variance extracted
		PB8	0.778		
	Service Quality	SEQ1	0.872	0.896	0.593
		SEQ2	0.87		
		SEQ3	0.775		
		SEQ4	0.864		
		SEQ5	0.855		
		SEQ6	0.786		
	System Quality	SYQ1	0.782	0.863	0.523
		SYQ2	0.712		
		SYQ3	0.81		
		SYQ4	0.538		
		SYQ5	0.759		
		SYQ6	0.764		

The results of the study, as presented in Table 4, offer substantiation that the suggested model is a suitable match for the collected data. The likelihood ratio chi-square test found that the model fit was significantly better than the baseline model (chi2_bs (779) = 11624.395, p 0.001), which suggests that the model accounted for a considerable amount of the variance in the data. The test was carried out using the likelihood ratio. In a similar vein, the fit of the model was substantially better than that of the saturated model (chi2_ms (748) = 12039.642, p 0.001), which suggests that the model was not over-specified.

Broadly speaking, the aforementioned results suggest that the proposed model was a suitable match for the data and provided a plausible account of the interrelationships among the observed variables. In evaluating the calibre of a model, it is crucial to consider not solely the model fit metrics but also additional factors, including the model's theoretical soundness and its interpretive capacity. It is noteworthy that adequacy indices of models should not be regarded as the sole factor to be taken into account.

Table 4. Model Fit

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(748)	12039.642	model vs. saturated
p > chi2	0	
chi2_bs(779)	11624.395	baseline vs. saturated
p > chi2	0	

The R-squared values for each of the model's four predictive variables are listed in the conclusions drawn from Table 5, which can be found below. The values of the coefficient of determination, or R-squared, give an indication of the percentage of the variance in the outcome variable (teaching quality indicators of Chinese-foreign cooperation) that is accounted for by each predictor variable. This proportion is indicated by the R-squared values.

The Teaching Outcome variable had the highest R-squared value (0.409), indicating that it explains the largest percentage of the variance in the outcome variable. This was indicated by the fact that this variable had the highest value. The value for Faculty Environment had the second-highest

R-squared, which was 0.311, followed by the value for Teaching Process, which was 0.36, and then the value for Resource Input. (0.275).

Table 5. R-square of Model

	R Square
Faculty Environment	0.311
Resource Input	0.275
Teaching Outcome	0.409
Teaching Process	0.36

According to these findings, the Teaching Outcome variable appears to be the most important factor in determining the teaching quality indicators of Chinese-foreign cooperation. This may suggest that efforts to enhance teaching results have the most potential to raise the level of collaboration between China and other countries as a whole. It is crucial to remember that each of the four predictor variables in the model contributes significantly to the result variable. Therefore, initiatives that seek to enhance any of these areas may also have a good impact on the level of teaching given.

The results of the HTMT test, also known as the heterotrait-monotrait ratio test, are shown in Table 6. The discriminant validity of the model's contained constructs is assessed using this test. The values of the HTMT for each combination of constructs are presented in the table. If the number is less than 0.85, this suggests that the discriminant validity is high. According to the findings, each of the constructs satisfies the requirements for acceptable discriminant validity, as the highest HTMT value is only 0.843, which is significantly lower than the threshold. As a result, we are able to draw the conclusion that the constructs included in the model are separate from one another and do not measure the same fundamental construct.

Table 6. HTMT Discriminant Validity

	1	**2**	**3**	**4**	**5**	**6**	**7**
Faculty Environment							
Perceived Benefits	0.575						
Resource Input	0.74	0.52					
Service Quality	0.475	0.452	0.47				
System Quality	0.64	0.749	0.541	0.575			
Teaching Outcome	0.678	0.74	0.513	0.245	0.688		
Teaching Process	0.843	0.661	0.641	0.321	0.685	0.732	

Looking at the specific values in table 6, we can see that the lowest HTMT value is between the faculty environment and perceived benefits constructs, indicating that these two constructs have the strongest discriminant validity in the model. The highest HTMT value is between the Teaching process and teaching outcome constructs, indicating that these two constructs have the weakest discriminant validity. However, as mentioned earlier, all the HTMT values are well below the threshold of 0.85, so we can still conclude that there is good discriminant validity overall in the model.

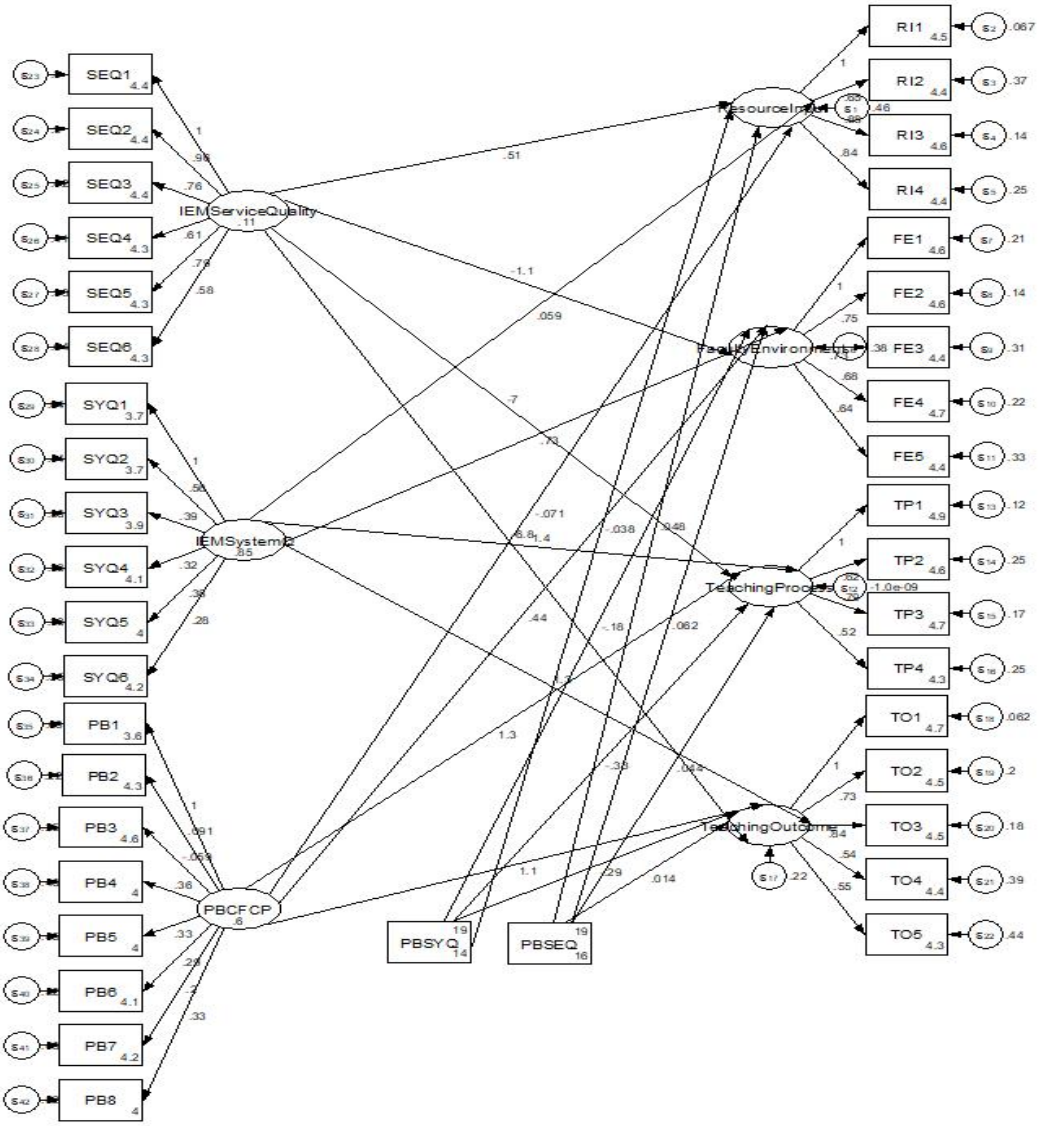


Figure 2. Structural Model

The table summarizes the findings of a study that investigated the links between numerous characteristics and four university teaching outcomes. The standardized coefficients, standard errors, z-scores, p-values, and confidence ranges for each association are provided.

The results show that various variables significantly predict the outcomes of interest (see Figure 2). PBSYQ and PBSEQ exhibit strong negative and positive effects on Resource Input, which refers to the availability and quality of teaching resources, respectively. The quality of an international education management system has no significant impact on any outcome, whereas the quality of an international education management service has a beneficial impact on resource input, teaching process, and teaching outcome. The PBCFCP has a negative influence on resource input while having a positive impact on the faculty atmosphere, the teaching process, and the teaching output.

PBSYQ has a strong negative impact on the Faculty Environment, implying that when resources are few, faculty members consider the environment to be less supportive. PBSEQ has a favorable impact on the Faculty atmosphere, meaning that faculty members experience a more supportive atmosphere when they have greater control over their work. Service quality has a negative impact on the faculty

environment in international education management, meaning that when service quality is excellent, faculty members may feel less need for support from the environment. The quality of the international education management system has a beneficial impact on the faculty environment, suggesting that faculty members experience a more supportive environment when system quality is high. The PBCFCP has a positive effect on the Faculty Environment, indicating that when finances are stable, the environment is perceived to be more helpful. PBSYQ has a detrimental impact on the teaching process, whereas international education management service and system quality have favorable effects, meaning that service and system quality are required for effective teaching. The PBSEQ has little influence on the teaching process. The PBCFCP has a favorable effect on the Teaching Process, demonstrating that financial stability is associated with a more effective teaching process.

Finally, PBSYQ has a negative impact on teaching outcomes, whereas international education management service quality and international education management system quality have a favorable impact, showing that these variables are important for achieving acceptable teaching outcomes. PBSEQ and PBCFCP have little effect on educational outcomes. Overall, the study suggests that the quality of services and systems, as well as financial stability, are essential elements in enabling effective teaching and achieving targeted teaching outcomes. (See Figure 7). It also highlights the importance of resources and faculty perceptions of the environment in promoting effective teaching.

Table 7. Data Coefficient

Standardized	**Coef.**	**Std. Err.**	**z**	**P>|z|**	**[95% Conf . Interval]**	
Structural						
ResourceInput <-						
PBSYQ	-.195679	0.086514	-2.26	0.024	-0.36524	-0.02611
PBSEQ	.27125	0.094932	2.86	0.004	0.085187	0.457313
IEMServiceQuality	.2374623	0.028075	8.46	0.000	0.182437	0.292488
IEMSystemQ	.0758459	0.172257	0.44	0.660	-0.26177	0.413462
PBCFCP	-.0764736	0.006885	-11.11	0.000	-0.08997	-0.06298
FacultyEnvironment <-						
PBSYQ	-.581076	0.094324	-6.16	0.000	-0.76595	-0.3962
PBSEQ	.2175586	0.102163	2.13	0.033	0.017323	0.417794
IEMServiceQuality	-.3070718	0.029919	-10.26	0.000	-0.36571	-0.24843
IEMSystemQ	.5837055	0.054513	10.71	0.000	0.476862	0.690549
PBCFCP	.2946871	0.023366	12.61	0.000	0.24889	0.340484
TeachingProcess <-						
PBSYQ	-.396313	0.073914	-5.36	0.000	-0.54118	-0.25144
PBSEQ	.0591036	0.085686	0.69	0.490	-0.10884	0.227044
IEMServiceQuality	-.7568656	0.018658	-40.57	0.000	-0.79343	-0.7203
IEMSystemQ	.4378643	0.025955	16.87	0.000	0.386994	0.488735
PBCFCP	.3336661	0.030618	10.9	0.000	0.273656	0.393676
TeachingOutcome <-						
PBSYQ	-.364329	0.069824	-5.22	0.000	-0.50118	-0.22748

Standardized	Coef.	Std. Err.	z	P>|z|	[95% Conf . Interval]	
PBSEQ	.019189	0.079966	0.24	0.810	-0.13754	0.17592
IEMServiceQuality	-.7704286	0.018263	-42.19	0.000	-0.80622	-0.73463
IEMSystemQ	.413206	0.022919	18.03	0.000	0.368285	0.458127
PBCFCP	.2950083	0.017487	16.87	0.000	0.260734	0.329282

According to the tables, the variables under consideration have different degrees of influence on the dependent variable of teaching effectiveness. The standardized coefficients and corresponding p-values show the strength and statistical significance of the relationship between each variable and teaching efficacy. Table 2 and 3 show that positive standardized coefficients and p-values less than 0.05 indicate that resource input and service quality have a significant positive impact on teaching efficacy. In contrast, as demonstrated by the non-significant p-value, system quality has no impact on teaching effectiveness.

The findings in Table 4 show that the faculty environment and teaching process have a significant positive impact on teaching efficacy, as evidenced by positive standardized coefficients and p-values less than 0.05. The impact of the faculty environment, on the other hand, appears to be stronger, as demonstrated by its larger standardized coefficient.

Table 7 shows that, with the exception of PBSEQ, all variables have a significant influence on teaching effectiveness. The strongest influence is service quality, with a negative standardized coefficient showing that greater service quality leads to lower teaching effectiveness. System quality and PBCFCP, on the other hand, have positive coefficients, indicating that better system quality and more faculty-student contact hours result in higher teaching effectiveness.

Overall, the results show that several variables affect teaching effectiveness, with service quality, faculty atmosphere, and teaching method playing particularly significant roles. The findings also highlight the significance of universities making investments in tools and services that enhance teaching efficiency, such as enhancing relationships between teachers and students and providing top-notch educational materials.

Discussion

This study's objective was to examine the application and efficiency of the global education management system against the backdrop of Chinese-foreign collaboration in institutions and colleges. The research used SEM to look at the connections between perceived benefits of the Chinese-foreign cooperation program, teaching quality indicators of Chinese-foreign cooperation, international education management service quality, and international education management system quality. The study generated some intriguing results based on the analysis of the data gathered from 327 college instructors in Shenzhen city. The majority of the tested hypotheses were supported by the studies overall findings (see table 8).

The research found that the four elements of the teaching quality indicators of Chinese-foreign cooperation, including resource input, faculty environment, teaching process, and teaching outcome, all significantly benefited from the quality of the international education management system; this is also in line with the findings of (Miller et al., 2021). This suggests that institutions of higher learning with superior international education management systems are more likely to have programs for Chinese-foreign cooperation with higher overall teaching quality indicators. The study also discovered that the relationship between the quality of the international education management system and the resource input, faculty environment, teaching process, and teaching outcome components of the Chinese-foreign cooperation teaching quality indicators was significantly moderated by the perceived benefits of the program; this is also in line with the findings of

(Hazaymeh, 2021). This indicates that the beneficial effects of high-quality international education management systems on teaching quality indicators become even stronger as teachers begin to perceive more advantages from Chinese-foreign cooperation programs. Intriguingly, the study discovered that international education management service quality did not significantly affect resource input, but did significantly improve faculty environment, teaching process, and teaching outcome, three out of the four components of teaching quality indicators of Chinese-foreign cooperation: these findings are also supported by the findings of (Khamphengvong et al., 2022). This suggests that when it comes to resource input, such as financial and material resources, in Chinese-foreign cooperation programs, service quality in the international education management system may be less significant than system quality.

Table 8. Final Findings

Hypotheses	**Findings**
H1a: International education management system quality significantly affects the resource input component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H1b: International education management system quality significantly affects the faculty environment component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H1c: International education management system quality significantly affects the teaching process component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H1d: International education management system quality significantly affects the teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H2a: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management system quality and resource input component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H2b: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management system quality and faculty environment component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H2c: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management system quality and teaching process component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H2d: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship between international education management system quality and teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H3a: International education management service quality significantly affects the resource input component of teaching quality indicators of Chinese-foreign cooperation.	Rejected
H3b: International education management service quality significantly affects the faculty environment component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H3c: International Education Management Service Quality significantly affects the Teaching Process component of Teaching Quality Indicators of Chinese-Foreign Cooperation.	Accepted
H3d: International education management service quality significantly affects the teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H4a: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management service quality and resource input component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H4b: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management service quality and faculty environment component of teaching quality indicators of Chinese-foreign cooperation.	Accepted
H4c: Perceived benefits of Chinese-foreign cooperation program significantly moderates the relationship of international education management service quality and teaching process component of teaching quality indicators of Chinese-foreign cooperation.	Rejected
H4d: Perceived benefits of Chinese-foreign cooperation program significantly moderates	Rejected

Hypotheses	Findings
the relationship of international education management service quality and teaching outcome component of teaching quality indicators of Chinese-foreign cooperation.	

In addition, the study discovered that the relationship between the resource input and faculty environment components of the teaching quality indicators of Chinese-foreign cooperation, but not the relationship between teaching process and teaching outcome, was significantly moderated by the perceived benefits of the program for Chinese-foreign cooperation. This indicates that rather than the teaching method or teaching outcome, the perceived benefits of Chinese-foreign cooperation initiatives may play a stronger role in enhancing the positive effects of service quality on resource input and faculty environment. Overall, the study's results offer significant new information about the elements that influence how well Chinese-foreign cooperation programs in universities and colleges use international education management systems.

The research emphasizes the value of having top-notch international education management systems as well as the potential advantages that can be realized in terms of improving teaching quality indicators. The research also highlights the importance of considering teachers' perceptions of the advantages of Chinese-foreign cooperation programs as well as the various impacts of system and service quality on indicators of teaching quality. In order to enhance their international education management systems and advance successful Chinese-foreign cooperation programs, universities and colleges in China and elsewhere should consider the practical ramifications of these results. It is crucial to remember that this research has some restrictions. First, the research only examined one Chinese city, which restricts the applicability of the conclusions. Future research could take into account a more varied sample of colleges and institutions from various parts of China. Second, the research only included data from college teachers, which might not accurately reflect the viewpoints of all parties involved in programs for Chinese-foreign cooperation. Future studies might think about gathering information from other parties involved, like students, program administrators, and public leaders. Also, because the research only used self-reported data, it may have been biased toward social desirability. Future research might take into account validating the results with additional metrics.

Conclusion

Finally, this study investigated the use and effectiveness of the global education management system in the context of Chinese-foreign collaboration in educational institutions and colleges. We discovered that a high-quality international education management system significantly contributes to the improvement of teaching quality indicators in Chinese-foreign cooperation programs by analyzing data from 327 college instructors in Shenzhen city and using structural equation modeling (SEM). Furthermore, the program's perceived benefits played an important moderating function, bolstering the favorable effects of the international education management system on teaching quality. Our findings underscore the need for a strong management system in supporting successful Chinese-foreign collaboration, as well as the importance of taking into account both system quality and perceived program benefits. These findings are useful for educational institutions looking to improve their international education initiatives and ensure high-quality teaching in Chinese-foreign cooperation programs.

Implication

There are several theoretical and practical consequences to take into account based on the study's findings: in order to improve the quality of Chinese-foreign cooperation in universities and colleges, the research emphasizes the significance of international education management system

quality. The research shows that the link between the teaching quality indicators of Chinese-foreign cooperation and international education management system quality is moderated by perceptions of the benefits of the Chinese-foreign cooperation program. The study shows that the international education management service quality has little to no influence on the resource input and teaching result components of the teaching quality indicators of Chinese-foreign collaboration. The research contributes to the body of knowledge on Chinese-foreign cooperation by examining the function of international education management system quality and perceived advantages of Chinese-foreign cooperation programs in increasing the quality of teaching and learning. University administrators should make investments in developing and improving the quality of the international education management system in order to improve the calibre of Chinese-foreign cooperation programs. To improve the efficiency of the international education management system quality, university administrators should concentrate on fostering a favorable view of the advantages of the Chinese-foreign cooperation program. To enhance the faculty environment and teaching process components of the teaching quality indicators of Chinese-foreign cooperation, university officials should give priority to faculty development and resource allocation. The value of international education management service quality should be acknowledged by university managers, along with a recognition of its limitations with respect to resource input and teaching outcome components. Future studies could examine the possible effects of additional elements, such as linguistic and cultural barriers, on the effectiveness of programs for Chinese-foreign cooperation.

Limitation and Future Recommendation

Overall, this study provides important insights into the relationship between the effectiveness of the international education management system, the perceived benefits of the programs, and teaching quality indicators of Chinese-foreign cooperation. It examines the application and investigation of the international education management system against the background of Chinese-foreign cooperation in Chinese universities and colleges.

Moreover, this study has several limitations which must be acknowledged. Firstly, the study's sample size of this research was only limited to the instructors serving in colleges in a Chinese city (Shenzhen). It may not be representative of Chinese-foreign collaboration activities in other regions of China as a consequence. Future research may enhance the sample size by incorporating individuals from other regions of China or even from other countries in order to obtain more generally applicable conclusions. Second, since only self-reported data were utilized in the study, measurement error from social desirability bias or other variables may have been introduced. Future research may use a range of metrics or objective measurements to lessen the likelihood of bias and create more trustworthy findings. Third, other potential outcomes or indicators of managing international education were not taken into consideration; the research only focused on the teaching quality indicators of Chinese-foreign cooperation. Future studies may broaden the study's focus to incorporate additional variables like research output, pupil satisfaction, or results of cultural exchanges. Despite these drawbacks, this research has significant ramifications for the growth of global education management systems and programs for Chinese-foreign cooperation. Particularly, the results imply that raising the quality of international education management systems may favorably affect the indicators of teaching quality in Chinese-foreign collaboration programs. Perceived advantages of Chinese-foreign cooperation initiatives can also influence this connection. Future studies could look into additional strategies to better the efficiency of Chinese-foreign cooperation initiatives and the results of global education management systems.

References

Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education*, *11*(3-4), 290-305.

Ammigan, R., Dennis, J. L., & Jones, E. (2021). The Differential Impact of Learning Experiences on International Student Satisfaction and Institutional Recommendation. *Journal of International Students*, *11*(2), 299-321.

Demir, A., Maroof, L., Sabbah Khan, N. U., & Ali, B. J. (2021). The role of E-service quality in shaping online meeting platforms: a case study from higher education sector. *Journal of Applied Research in Higher Education*, *13*(5), 1436-1463.

Doyle, S., Gendall, P., Meyer, L. H., Hoek, J., Tait, C., McKenzie, L., & Loorparg, A. (2010). An investigation of factors associated with student participation in study abroad. *Journal of Studies in International Education*, *14*(5), 471-490.

El Said, G. R. (2021). How did the COVID-19 pandemic affect higher education learning experience? An empirical investigation of learners' academic performance at a university in a developing country. *Advances in Human-Computer Interaction*, 1-10.

Gauttam, P., Singh, B., & Chattu, V. K. (2021). Higher Education as a Bridge between China and Nepal: Mapping Education as Soft Power in Chinese Foreign Policy. *Societies*, *11*(3), 81.

Hauptman Komotar, M. (2019). Global university rankings and their impact on the internationalisation of higher education. *European Journal of Education*, *54*(2), 299-310.

Hazaymeh, W. (2021). EFL students' perceptions of online distance learning for enhancing English language learning during Covid-19 pandemic. *International Journal of Instruction, 14*(3), 501-518.

Huang, L., Zhang, W., Jiang, H., & Wang, J.-L. (2023). The Teaching Quality Evaluation of Chinese-Foreign Cooperation in Running Schools from the Perspective of Education for Sustainable Development. *Sustainability*, *15*(3), 1975.

James, M. A., & Derrick, G. E. (2020). When "culture trumps strategy": higher education institutional strategic plans and their influence on international student recruitment practice. *Higher Education*, *79*, 569-588.

Khamphengvong, V., Zhang, H., Wu, Q., & Thavisay, T. (2022). Examine the Economic and Social Effects on Lao People's Perceived Benefit Attitudes towards BRI. *Sustainability*, *14*(9), 5088.

Li, J., & Xue, E. (2022). Policy Analysis on the Opening Up of Graduate Education in China's Universities. In *Graduate Education Governance in China: A Comprehensive Policy Analysis*, 115-125.

Li, J., & Xue, E. (2022b). Sino-Foreign Cooperation of Running Schools in China. In *Opening Education to the Outside World: Rethinking International Education in China During Post COVID-19*, 27-42).

Lin, P. L. (2019). Trends of internationalization in China's higher education: opportunities and challenges. *US-China Education Review B*, *9*(1), 1-12.

Liu, I.-C., & Sayer, P. (2016). Reconciling pedagogical beliefs and teaching Practices: Chinese teachers and the pressures of a US High school foreign language context. *The Journal of Language Learning and Teaching*, *6*(1), 1-19.

Ma, J. (2022). The Reflection of the Intercultural Communication Teaching: A Study of Two Courses of the Chinese-Foreign Cooperative Education Program. *Online Submission*.

Madani, R. A. (2019). Analysis of Educational Quality, a Goal of Education for All Policy. *Higher Education Studies*, *9*(1), 100-109.

Martins, J., Branco, F., Gonçalves, R., Au-Yong-Oliveira, M., Oliveira, T., Naranjo-Zolotov, M., & Cruz-Jesus, F. (2019). Assessing the success behind the use of education management information systems in higher education. *Telematics and Informatics*, *38*, 182-193.

Martirosyan, N. M., Bustamante, R. M., & Saxon, D. P. (2019). Academic and social support services for international students: Current practices. *Journal of International Students*, *9*(1), 172-191.

Miller, A. L., Fassett, K. T., & Palmer, D. L. (2021). Achievement goal orientation: A predictor of student engagement in higher education. *Motivation and Emotion*, *45*, 327-344.

Muslim, A. B., Salim, H., & Setyarini, S. (2020). Indonesian parental perspectives of international school partnerships involving millennial learners. *Journal of Research in International Education*, *19*(2), 106-119.

Ngwira, G., & Intravisit, A. (2023). Factors Influencing Undergraduate Students' Loyalty: A Study of Thai Private Universities Offering International Programs. *ABAC ODI JOURNAL Vision. Action. Outcome*, *10*(2), 175-198.

Oliva, F. L., Teberga, P. M. F., Testi, L. I. O., Kotabe, M., Del Giudice, M., Kelle, P., & Cunha, M. P. (2022). Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. *Technological Forecasting and Social Change*, *175*, 121346.

Pedro, N. S., & Kumar, S. (2020). Institutional Support for Online Teaching in Quality Assurance Frameworks. *Online Learning*, *24*(3), 50-66.

Ramsden, P. (1991). A performance indicator of teaching quality in higher education: The Course Experience Questionnaire. *Studies in Higher Education*, *16*(2), 129-150.

Smith, C. (2020). International students and their academic experiences: Student satisfaction, student success challenges, and promising teaching practices. *Rethinking Education across Borders: Emerging Issues and Critical Insights on Globally Mobile Students*, 271-287.

Sutter, R. G. (2012). *Chinese foreign relations: Power and policy since the Cold War*. Rowman & Littlefield.

Swanson, M. K., & Swanson, B. A. (2019). Faculty placement strategies for international higher education institutes: A cultural values perspective. *Journal of International Education in Business*, *12*(2), 212-227.

Teeroovengadum, V., Nunkoo, R., Gronroos, C., Kamalanabhan, T. J., & Seebaluck, A. K. (2019). Higher education service quality, student satisfaction and loyalty: Validating the HESQUAL scale and testing an improved structural model. *Quality Assurance in Education*, *27*(4), 427-445.

Turnbull, D., Chugh, R., & Luck, J. (2020). Learning Management Systems, An Overview. *Encyclopedia of Education and Information Technologies*, 1052-1058.

Wang, J., An, N., & Wright, C. (2018). Enhancing beginner learners' oral proficiency in a flipped Chinese foreign language classroom. *Computer Assisted Language Learning*, *31*(5-6), 490-521.

Welch, A., & Xu, X. (2019). Prospect and limits of China-EU relations in higher education: a Danish Case Study. *Frontiers of Education in China*, *14*, 257-283.

Yang, L., Yang, J., & Wang, C. (2021). The research-intensive university in a glonacal higher education system: the creation of the world-class university in China. *Journal of Higher Education Policy and Management*, *43*(4), 415-434.

Zapp, M., & Lerch, J. C. (2020). Imagining the world: Conceptions and determinants of internationalization in higher education curricula worldwide. *Sociology of Education*, *93*(4), 372-392.