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Exploration on the Innovative Talent Training Model for Chinese-Foreign Cooperative Education in Chinese Universities in the Post-epidemic Era

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	Abstract
<p>Article History</p> <p>Article Submission 12 September 2023</p> <p>Revised Submission 4 October 2023</p> <p>Article Accepted 1 November 2023</p>	<p>The COVID-19 pandemic has presented the world education system with never-before-seen difficulties, and the Chinese higher education market has also been impacted. To improve student career development and academic performance in Chinese universities, creative talent training and Chinese-foreign cooperation have come to light in this setting. With a focus on the mediating role of teaching quality and the moderating influence of the epidemic scenario, this study intends to evaluate the impact of creative talent training and Chinese-foreign collaboration on student career development and academic performance in the post-epidemic age. Using a stratified random sample technique, a survey of 350 undergraduate students from Chinese universities was carried out to meet this goal. SEM was used to examine the gathered data. The study's conclusions show that creative talent training and Chinese-foreign cooperation significantly improve academic achievement and career growth in students. Additionally, the association between these two variables and student outcomes is somewhat mediated by teaching quality, highlighting the significance of effective instruction for the effectiveness of these tactics. Additionally, the findings reveal that the severity of the epidemic scenario modifies the association between Chinese foreign cooperation and student outcomes, indicating that the success of this method is dependent on the issue's severity. By providing empirical evidence of their impact on student outcomes in the post-epidemic era, highlighting the significance of teaching quality, and recognizing the moderating effect of the epidemic situation, this study contributes to the literature on talent development and international cooperation in higher education.</p> <p>Keywords: Chinese-Foreign Cooperation; Epidemic Situation; Innovative Talent Training; Teaching Quality; Student Career Development; Student Academic Performance</p>

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Introduction

China has been actively promoting foreign cooperation in the education sector as part of its strategy to enhance its soft power and strengthen its influence globally. The nation has relationships with many nations and institutions across the world, including academic exchanges, scholarships, and cooperative research projects (X. Li & Chang, 2019). China has also recently made large investments in expanding its higher education institutions and luring foreign students to study there. As a result, more and more foreign researchers and students are traveling to China to study and work with local organizations.

The education system in China is primarily controlled and regulated by the Ministry of Education of the People's Republic of China. The system comprises primary, secondary, and tertiary education, and the government emphasizes the importance of education for social and economic development (Liu, Sun, & Tu, 2019). The strategies followed in Chinese education include a focus on rote learning and memorization, as well as an emphasis on discipline and obedience. However, in recent years, there has been a push toward a more innovative and creative approach to education (You, 2022). The curriculum in Chinese schools and universities is designed to provide students with a broad-based education that includes subjects such as Chinese language and literature, mathematics, science, history, and social studies. In tertiary education, credits are provided based on the number of hours of instruction, and students are required to earn a certain number of credits to complete their degree (Zhou, 2020).

Chinese institutes collaborate with foreign institutes in various ways, including student and faculty exchange programs, joint research projects, and training programs. These collaborations are typically based on mutual benefit and may be initiated through partnerships between individual researchers or institutions (Fathi, Derakhshan, & Torabi, 2020). Student exchange programs allow Chinese students to study abroad and gain exposure to different cultures and educational systems, while foreign students can study in China and learn about the country's language and culture. Faculty exchange programs facilitate the sharing of knowledge and expertise between Chinese and foreign scholars (Jeong, 2017). Training programs conducted in collaboration with foreign institutes focus on areas such as language instruction, professional development, or technology transfer. These programs can help to build bridges between different educational systems and promote international cooperation (Matsuo & Arakaki, 2022). In Chinese universities, teachers play a crucial role in shaping students' academic and personal development. They are responsible for delivering the curriculum, evaluating student performance, and providing guidance and support. In recent years, there has been a focus on improving the quality of teaching in Chinese universities and promoting innovative talent training (Wu, Foong, & Alias, 2022).

Chinese educational exchange programs have helped China, but they have also advanced intellectual study and education worldwide. Universities in China have experienced major difficulties in assuring the academic performance and career development of their students as a result of the COVID-19 pandemic. Innovative talent development and Chinese-foreign collaboration have consequently come to light as possible methods for improving student performance in the post-epidemic era (Abdulrahim, Sukoharsono, Saraswati, & Subekti, 2020). The influence of these tactics on students' academic achievement and career development, as well as the mediating and moderating factors that may affect their effectiveness, are, however, only partially supported by empirical data. Teaching quality is one potential mediating component that hasn't gotten much attention. There is a lack of empirical data on the extent to which teaching quality mediates the relationship between innovative talent training (Beuchel, Groß Ophoff, Cramer, & Hautzinger, 2022), Chinese-foreign cooperation, and student outcomes, despite the fact that high-quality teaching is widely acknowledged as a critical factor in improving student outcomes.

The epidemic has had a significant impact on Chinese-foreign cooperative education in Chinese universities. The travel restrictions and health concerns have made it difficult for foreign students and faculty to come to China, leading to a decrease in enrollment and international exchange programs (Kang & Lee, 2020). The shift to online learning has also posed challenges for students and faculty, especially those who are not accustomed to distance learning. The pandemic has also disrupted the financial viability of many institutions and has caused delays in research

projects and collaborations. Despite these challenges, universities have been implementing measures such as online courses and virtual exchange programs to mitigate the impact of the epidemic and maintain international cooperation (Zhang, Nie, Ma, & Chen, 2022).

There is a lack of empirical research on the effects of creative talent training and Chinese-foreign collaboration in the higher education sector, particularly in the post-epidemic period, despite the growing interest in these topics. Few researchers have looked at how these methods affect both academic achievement and career development at the same time, despite several studies looking at how they affect other areas of student development, such as employability and intercultural competence. The literature on the processes that could mediate or modify the relationship between creative talent training, Chinese-foreign cooperation, and student results is also lacking. The main objectives of this study are as follows; 1). To examine the impact of innovative talent training and Chinese-foreign cooperation on student career development in Chinese universities in the post-epidemic era, 2). To investigate the impact of innovative talent training and Chinese-foreign cooperation on student academic performance in Chinese universities in the post-epidemic era, 3). To explore the mediating role of teaching quality in the relationship between innovative talent training, Chinese-foreign cooperation, and student outcomes, 4). To examine the moderating role of the epidemic situation in the relationship between innovative talent training, Chinese-foreign cooperation, and student outcomes.

By examining the effects of cutting-edge talent development programs and Chinese-foreign collaboration on both career development and academic performance, as well as the mediating and moderating factors that may affect these programs' efficacy, these objectives are meant to fill in the gaps in the literature. By fulfilling these goals, the study will be able to offer insightful information to practitioners, educators, and policymakers in China's higher education system and elsewhere, as well as contribute to the creation of practical plans for enhancing student outcomes in the post-epidemic age (Ma, Liu, & Li, 2022). The contribution of this study lies in its examination of the effects of innovative talent training and Chinese-foreign cooperation on student academic performance and career development in the post-epidemic era, while also looking at the mediating and moderating roles of teaching quality and epidemic situation. The study is anticipated to offer insightful information about the efficacy of these tactics and their potential to improve student outcomes in the present difficult circumstances (Gai, Gu, Wang, & Jia, 2022). The results of this study will add to the body of information on cutting-edge talent development, Chinese-foreign cooperation, and their effects on academic performance, particularly in the post-epidemic era. A more thorough understanding of how these strategies affect student outcomes will be provided by the study's examination of both career development and academic performance. This understanding will aid educators and policymakers in developing programs and policies that will improve student outcomes.

Literature Review

Innovative Talent Training and Student Career Development

Innovative talent training has become a critical component of higher education institutions' efforts to prepare graduates for the rapidly evolving labor market (Ji, Jiao, & Cheng, 2023). Innovative talent development refers to a group of educational practices that work to improve students' communication, creativity, critical thinking, and other characteristics. Producing graduates who can flourish in dynamic and uncertain work situations and contribute to innovation and economic development is the goal of innovative talent training (Guzeller & Celiker, 2020). The effect of creative talent training on students' career growth has been investigated. Innovative talent training programs were discovered by Xu, Yu, Pang, Dou, and Li (2022) to have a favorable effect on students' career growth. According to the study, students who took part in these programs were more likely to have a specific career path, have a better grasp of their strengths and weaknesses, and have a wider range of abilities that helped them adjust to shifting work situations.

H1: Innovative talent training has a significant and positive impact on student career development.

Innovative Talent Training and Student Academic Performance

Innovative talent training has been gaining momentum in higher education as an approach to enhancing students' academic achievement. Innovative talent development strives to improve pupils' communication, creativity, critical thinking, and other competencies (Marra, 2022). According to Cherukunnath and Singh (2022), innovative talent training programs in China improved students' academic performance. The study discovered that, in comparison to students who did not participate in the programs, those who did have higher grades in both their main and non-major courses. The study concluded that creative talent development programs enhance students' academic performance by encouraging their capacity for critical thought, problem-solving, and interdisciplinary learning.

H2: Innovative talent training has a significant and positive impact on student academic performance.

Chines-Foreign Cooperation and Student Career Development

Chinese-foreign cooperation in higher education has become increasingly popular as a way to promote internationalization and enhance the quality of education for students. Several studies have examined the impact of Chinese-foreign cooperation on student career development. Goodman and Dent (2019) investigated the impact of Chinese-foreign cooperation programs on students' employability in China. The study found that students who participated in Chinese-foreign cooperation programs had higher levels of employability than those who did not participate in such programs. The study suggested that Chinese-foreign cooperation programs could enhance students' employability by providing them with opportunities to develop cross-cultural competencies, language skills, and international networks (M. Wang, Liu, Rahman, Sun, & Sriboonchitta, 2023).

H3: Chines-Foreign Cooperation has a significant and positive impact on student career development.

Chines-Foreign Cooperation and Student Academic Performance

Chinese-foreign cooperation in higher education has been widely recognized as a strategy to improve the quality of education and enhance students' academic achievement. Several studies have examined the impact of Chinese-foreign cooperation on student academic achievement. Behrmann and Plaut (2020) investigated the impact of international cooperation on the academic performance of Chinese university students. The study found that students who participated in Chinese-foreign cooperation programs had higher levels of academic achievement than those who did not participate in such programs. The study suggested that Chinese-foreign cooperation programs could improve students' academic performance by providing them with exposure to new teaching methods, innovative curricula, and diverse academic cultures.

H4: Chines-Foreign Cooperation has a significant and positive impact on Student Academic Achievement.

Teaching Quality and Student Career Development

One of the most important variables influencing students' career growth is the quality of the teaching. It affects students' learning, motivation, and general development. This review of the literature will look at numerous studies that looked at how teaching quality affected students' career growth. According to research, excellent instruction can help students grow their careers. Beuchel et al. (2022) claim that students who receive high-quality instruction are more likely to comprehend their subject matter better, develop their abilities, and become more prepared for the workforce. Also, Noguerón-Liu (2020) revealed that students with superior instruction had improved employability abilities like problem-solving, communication, and cooperation. The motivation and involvement of students, which are crucial for career development, can also be impacted by teaching quality. According to Alfaifi, Bridges, and Arakawa (2022), students who felt their teachers were encouraging and supportive were more likely to be involved in their studies and attain academically higher levels. Increased self-efficacy a conviction in one's capacity to succeed which is crucial for career development can result from this drive and engagement.

H5: Teaching quality has a significant and positive impact on student career development.

Teaching Quality and Student Academic Performance

Teaching quality is one of the most significant factors affecting student academic performance. It can impact students' learning, engagement, and overall academic achievement. Teaching quality can impact students' motivation and engagement, which is essential for academic performance. Xu et al. (2022) found that students who perceived their teachers as supportive and motivating had higher levels of engagement and academic achievement. Furthermore, C. Li, Ma, and Xi (2021) found that students who had a positive learning environment and teacher-student relationships had higher academic motivation and achievement. Teaching quality can also impact students' learning and understanding of the material. Molina et al. (2020) found that high-quality teaching practices, such as providing feedback and using clear explanations, led to improved student learning and understanding of complex concepts. Furthermore, Gardner-Neblett, De Marco, and Ebright (2023) found that teachers who had strong content knowledge and pedagogical practices were more effective in promoting student learning and academic achievement.

H6: Teaching quality has a significant and positive impact on Student Academic Performance.

Teaching Quality as a Mediator

Innovation and talent training have been emphasized in the education sector as they enhance student career development. However, the role of teaching quality in mediating the relationship between innovation and talent training, and student career development is unclear. Teaching quality is a crucial factor in student career development as it enhances student learning outcomes and prepares them for their future careers (Al-Dmour, B. A., Al-Nawayseh, A.-H. T., Al-Tarawneh, M. A., & Hani, Z. M. B., 2023). According to Molina et al. (2020), high-quality teaching practices improve students' knowledge and skills, which are essential for their career development. Innovative talent training refers to the development of students' innovative abilities, including creativity, problem-solving, and critical thinking skills.

H7: Teaching quality mediates the relationship between innovative talent training and student career development.

Innovative talent training is a growing trend in the education sector, as it has been found to positively influence students' academic performance. However, the role of teaching quality in mediating the relationship between innovative talent training and student academic performance has not been fully explored. Teaching quality is a crucial factor in improving student academic performance. According to Luo and Song (2022), effective teaching practices, such as teacher-student interaction, feedback, and assessment, enhance students' learning outcomes and academic performance. Innovative talent training has been found to improve student academic performance by enhancing their critical thinking, problem-solving, and creativity skills.

H8: Teaching quality mediates the relationship between innovative talent training and student academic performance.

As it provides chances for global collaboration and student career growth, Chinese-foreign cooperations have been expanding in the education industry. Since it improves student learning outcomes and equips them for their future employment, teaching quality is an important factor in the development of students' careers. High-quality teaching techniques, according to Pribišev Beleslin and Travar (2022), enhance students' knowledge and abilities, which are crucial for their career growth. Chinese-foreign cooperations have been proven to have a good impact on students' career development by giving them possibilities for work experience abroad and international collaboration. According to Fang (2021), students' professional development was positively impacted by Chinese-foreign cooperations by giving them job experience and chances to hone their language and cultural competencies.

H9: Teaching quality mediates the relationship between Chinese-foreign cooperation and student career development.

The relationship between Chinese foreign cooperation and student academic performance has been widely studied in the education sector. Teaching quality is a crucial factor in improving student academic performance. According to Goodman and Dent (2019), effective teaching practices, such as teacher-student interaction, feedback, and assessment, enhance student's learning outcomes and academic performance. For instance, X. Li and Chang (2019) reported that

Chinese-foreign cooperation positively influenced students' academic performance by exposing them to different teaching methods and academic environments. Few studies have investigated the mediating role of teaching quality in the relationship between Chinese foreign cooperation and student academic performance.

H10: Teaching quality mediates the relationship between Chinese-foreign cooperation and student academic performance.

Epidemic Situation as Moderator

The pandemic has significantly impacted the education sector, including innovative talent training and student career development. The epidemic situation acts as a moderator in the relationship between innovative talent training and student career development. Innovative talent training has been found to positively influence student career development by providing opportunities for creativity, critical thinking, and problem-solving skills. According to C. Wang et al. (2020), innovative talent training enhances students' knowledge and skills, which are essential for their career development. Additionally, effective innovative training methods, such as project-based learning, promote students' creativity and innovation, which are vital for success in the current job market (Nguyen et al., 2023). For instance, Wu et al. (2021) reported that the pandemic negatively influenced students' career development by reducing job opportunities and delaying their career plans. Few studies have investigated the moderating role of the epidemic situation in the relationship between innovative talent training and student career development.

H11: Epidemic situation moderates the relationship between innovative talent training and student career development.

The COVID-19 epidemic has had a tremendous impact on student academic performance and innovative talent training in the education sector. The association between creative talent training and student academic achievement may be moderated by the epidemiological condition. Innovative talent development has been shown to improve student's critical thinking, creativity, and problem-solving abilities, which in turn influences their academic success. Saville and Foster (2021) claim that innovative talent training encourages students to learn actively, which improves their academic achievement. Aristovnik, Keržič, Ravšelj, Tomažević, and Umek (2020) noted that the pandemic had a detrimental impact on student's academic performance by causing worry, anxiety, and challenges with online learning. Several researchers have examined how the epidemic condition influences the link between inventive talent development and academic achievement among students.

H12: Epidemic situation moderates the relationship between innovative talent training and student academic performance.

The pandemic has had a significant impact on the global economy and has affected many industries, including Chinese-foreign cooperations. The epidemic situation acts as a moderator in the relationship between Chinese-foreign cooperations and student career development. Chinese-foreign cooperation provides students with unique opportunities for career development, including job experience, language learning, and cultural exposure. According to Zivan, Gashri, Habuba, and Horowitz-Kraus (2022), Chinese-foreign cooperations provide students with a valuable platform to develop their professional skills and build their careers. Additionally, exposure to diverse cultures and working environments in Chinese-foreign cooperations enhances students' cultural competence and adaptability, which are essential for their career development. Similarly, Aristovnik et al. (2020) and Pérez, Tiemann, and Urrejola (2023) found that the pandemic affected students' career adaptability and employability by limiting opportunities for work experience and networking. Few studies have investigated the moderating role of the epidemic situation in the relationship between Chinese-foreign cooperations and student career development. However, Lang, Maffett, Omartian, and Silvers (2020) found that the epidemic situation moderated the relationship between Chinese-foreign cooperations and students' career development. Specifically, they found that the impact of Chinese-foreign cooperations on students' career development was stronger during the pandemic than in normal circumstances. They suggested that Chinese-foreign cooperations could provide students with unique opportunities to develop their skills and adapt to the changing job market during the pandemic.

H13: Epidemic situation moderates the relationship between Chinese-foreign cooperation and

student career development.

The epidemic has brought about enormous changes to education all across the world, including the academic performance of students participating in Chinese foreign cooperation programs. There is a possibility that the outbreak of the virus will play a moderating role in the connection between Chinese-foreign cooperation and the academic achievement of students. Students in China have access to a variety of learning alternatives that help them improve their academic performance as a result of Chinese-foreign cooperation. According to Amerstorfer and Freiin von Münster-Kistner (2021), Chinese-foreign cooperation provides students with access to international teachers, innovative teaching facilities, and a comprehensive range of learning resources. Students who take advantage of these possibilities improve their academic performance as a result of their increased ability to think critically and get a broader perspective on the academic subjects in which they are pursuing studies (Peng, Sun, & He, 2022).

H14: Epidemic situation moderates the relationship between Chinese-foreign cooperation and student academic performance.

Based on the above-discussed literature and hypothesis development, the following framework has been developed as shown in Figure 1.

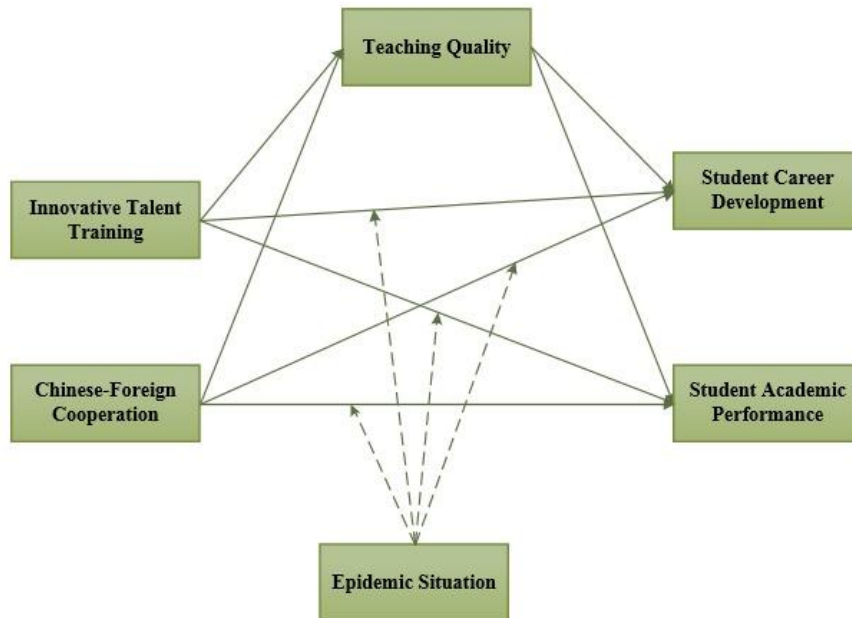


Figure 1. Conceptual Framework

Methodology

This quantitative study aims to investigate the impact of innovative talent training and Chinese-foreign cooperation on student career development and student academic performance in Chinese universities in the post-epidemic era. The study also aims to explore the mediating role of teaching quality and the moderating role of the epidemic situation in this relationship. The study used a cross-sectional survey design to collect data from students in Chinese universities. The sample size for this study was determined using power analysis to ensure that the study had sufficient statistical power. The sample was drawn from Chinese universities that offer Chinese-foreign cooperative education programs. Participants were recruited through email invitations and social media announcements. Stratified random sampling was used to ensure that participants from different universities and programs were included. The questionnaire was distributed to 400 undergraduate students of Chinese universities out of which 350 completely filled questionnaires were received and considered for further analysis. Data were analyzed by using SPSS and SmartPLS 4. The survey was administered online using a structured questionnaire. The questionnaire consisted of two parts. The first part was related to demographic information such

as age, gender, and year of education. The second part of the survey includes items on the following variables:

Innovative Talent Training

This variable was measured using a 5-point Likert scale with items adapted from previous studies (Ji et al., 2023).

Chinese-Foreign Cooperation

This variable was measured using a 5-point Likert scale with items adapted from previous studies (Fang, 2021).

Teaching Quality

This variable was measured using a 5-point Likert scale with items adapted from previous studies (Gardner-Neblett et al., 2023).

Epidemic Situation

This variable was measured using a 5-point Likert scale with items adapted from previous studies (C. Wang et al., 2020).

Student Career Development

This variable was measured using a 5-point Likert scale with items adapted from previous studies (Steeb, Zeeman, Bush, Dascanio, & Persky, 2021).

Student Academic Performance

This variable was measured using a 5-point Likert scale with items adapted from previous studies (Beckham, Akeh, Mitaart, & Moniaga, 2023).

Results

Measurement Model

SmartPLS4 was used to perform the statistical analysis. Both the composite reliability (CR) and Cronbach's statistics were utilized in order to conduct the reliability analysis that is presented in Table 1. Only the factor loadings that were greater than 0.7 were retained and the rest were eliminated. It is helpful to look at the values of the average variance extracted (AVE) and the composite reliability when determining whether or not the scale is appropriate for use on our data sample. These values can be found in the table below (CR). According to the research that has been done, an acceptable value for AVE is any value of 0.5 or higher, and our findings confirmed that this requirement was met (Table 1). According to the requirement, the value of CR for each variable must be greater than 0.7 (Sandra Marcelline et al., 2022), and the value of CR for our variables, as indicated by the results, satisfies this requirement as well. The cutoff point for Cronbach's is set at 0.7, and the values that were obtained for all of the variables were noticeably greater than the cutoff point.

Table 1. Construct Reliability and Validity

	Items	Outer Loading	VIF	Cronbach's Alpha	CR	AVE
Chinese-Foreign Cooperation	CFC1	0.859	2.445	0.851	0.893	0.626
	CFC2	0.782	1.635			
	CFC3	0.784	2.047			
	CFC4	0.727	1.656			
	CFC5	0.798	1.776			
Epidemic Situation	ES1	0.850	3.178	0.815	0.873	0.584
	ES2	0.884	3.540			
	ES3	0.713	1.973			
	ES4	0.744	1.563			
	ES5	0.594	1.307			
Innovative Talent Training	ITT1	0.882	4.616	0.911	0.933	0.737

	Items	Outer Loading	VIF	Cronbach's Alpha	CR	AVE
	ITT2	0.843	3.893			
	ITT3	0.878	3.668			
	ITT4	0.849	3.433			
	ITT5	0.840	3.608			
Student Academic Performance	SAP1	0.688	1.529	0.794	0.857	0.546
	SAP2	0.720	1.559			
	SAP3	0.760	1.570			
	SAP4	0.758	1.536			
	SAP5	0.764	1.507			
Student Career Development	SCD1	0.789	3.004	0.871	0.905	0.656
	SCD2	0.772	2.965			
	SCD3	0.877	2.420			
	SCD4	0.818	2.114			
	SCD5	0.790	2.298			
Teaching Quality	TQ1	0.879	4.141	0.843	0.891	0.624
	TQ2	0.625	1.376			
	TQ3	0.688	1.540			
	TQ4	0.870	3.241			
	TQ5	0.852	3.781			

The indicator that was utilized to measure the discriminant validity was the heterotrait monotrait ratio, also known as the HTMT ratio. This ratio is also known as the HTMT ratio. Below 0.9 is the optimal range for this ratio (Nawaz & Guribie, 2022). As shown in Table 2, the fact that the values for the HTMT ratio across all variables were significantly lower than 0.9 provided evidence that the correlation of items across constructs is lower than the correlation of items within the same constructs. This was the case because the values for the HTMT ratio across all variables were significantly lower than 0.9. As a direct consequence of this, the discriminant validity was not compromised. In addition, the Fornell–Larcker criterion was applied in order to assess the discriminant validity, which can be seen in Table 3. The square root of the average variance extracted from each construct was higher than the correlations between the various constructs (diagonal in italics).

Table 2. Discriminant Validity (HTMT)

	CFC	ES	INT	SAP	SCD	TQ
Chinese-Foreign Cooperation						
Epidemic Situation	0.665					
Innovative Talent Training	0.406	0.331				
Student Academic Performance	0.433	0.628	0.188			
Student Career Development	0.283	0.183	0.431	0.178		
Teaching Quality	0.477	0.707	0.086	0.462	0.169	

Table 3. Discriminant Validity (Fornell-Larcker)

	CFC	ES	INT	SAP	SCD	TQ
Chinese-Foreign Cooperation	0.791					
Epidemic Situation	0.561	0.764				
Innovative Talent Training	0.344	0.113	0.858			
Student Academic Performance	0.383	0.527	0.147	0.739		
Student Career Development	0.251	0.011	0.409	0.103	0.810	
Teaching Quality	0.425	0.594	0.076	0.385	0.139	0.790

Structural Model

The values of the variance inflation factor serve as a sign that multicollinearity is present (VIF). Because none of the values came anywhere close to 5, as shown by the findings that are presented in Table 1, which indicated that there was no multicollinearity, we were able to move forward with the testing of the mediation model (Figure 2). This was made possible by the fact that there was no multicollinearity.

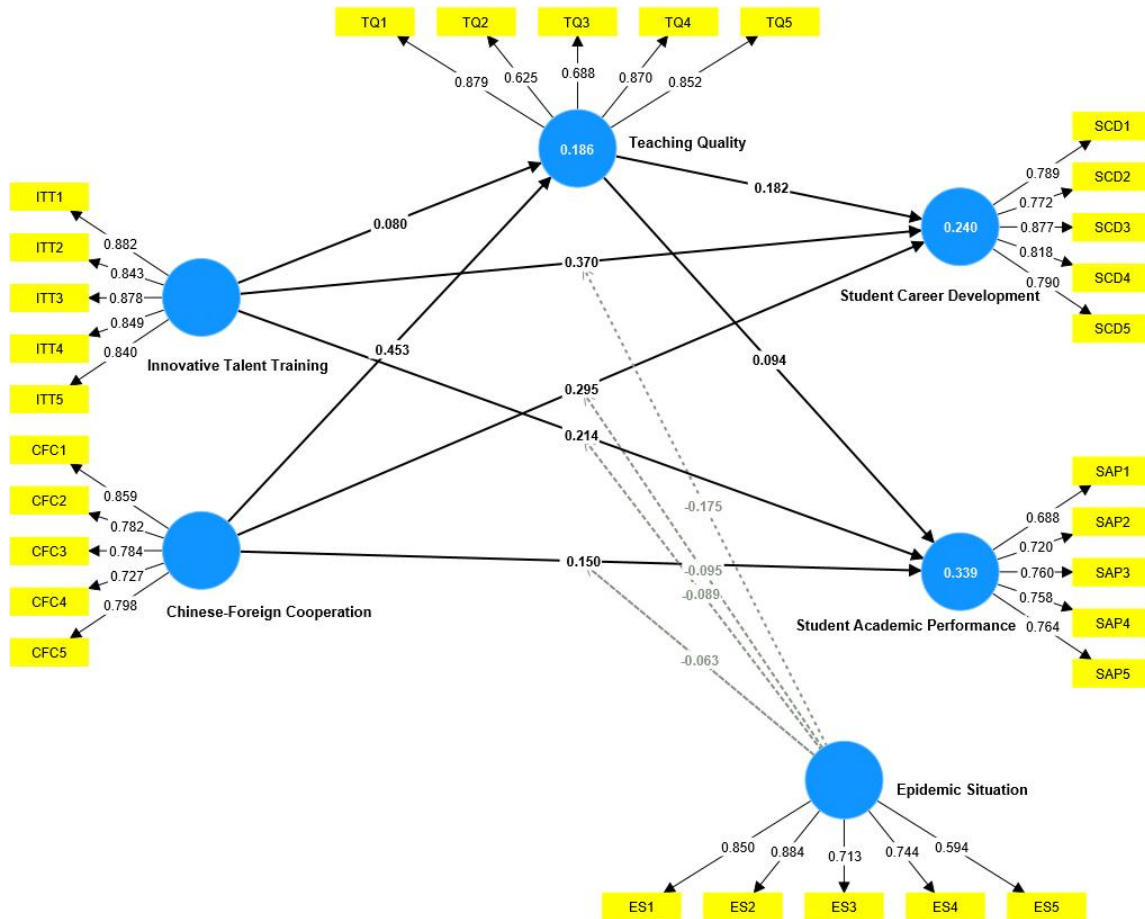


Figure 2. Measurement Model

Direct Relationships of Latent Variables

The testing of hypotheses was carried out with the assistance of SmartPLS4, as can be seen in Tables 4, 5, and 6. The findings of the direct relationships between the latent variables, also known as the path analysis, are presented in Table 5. Because the first hypothesis was validated, we can deduce that innovative talent training does have a significant and favorable influence on student career development ($t= 6.471, p=0.0001$). The acceptance of Hypothesis 2 demonstrates that innovative talent training does have a significant impact and that this influence is a favorable one, on the students' academic performance ($t= 3.344, p=0.0001$). Furthermore, Hypothesis 3 was validated, demonstrating that Chinese-foreign cooperation has a sizeable and favorable influence on student career development ($t= 3.849, p=0.0001$). The fourth hypothesis was validated as well, demonstrating that Chinese-foreign cooperation does have a significant influence on the student's academic performance ($t= 2.108, p=0.018$). Both Hypothesis 5 and Hypothesis 6 were found accepted, confirming that teaching quality has a significant and favorable influence on student career development and student academic performance ($t= 2.980, p=0.001$) and ($t= 2.057, p=0.020$) respectively.

Table 4. Direct Effects

Constructs	Path coefficient	t-statistics	p-values
Innovative Talent Training -> Student Career Development	0.370	6.471	0.0001
Innovative Talent Training -> Student Academic Performance	0.214	3.344	0.0001
Chinese-Foreign Cooperation -> Student Career Development	0.295	3.849	0.0001
Chinese-Foreign Cooperation -> Student Academic Performance	0.150	2.108	0.018
Teaching Quality -> Student Career Development	0.182	2.980	0.001
Teaching Quality -> Student Academic Performance	0.094	2.057	0.020

Mediating Relationships of Latent Variables

The findings regarding the mediation of teaching quality between innovative talent training, Chinese-foreign cooperation, student career development, and student academic performance are presented in Table 5. In regard to Hypothesis 7, the specific indirect effects showed that the teaching quality was the mediator of the relationship between innovative talent training and the career development of students ($t= 1.981$, $p= 0.047$). Concerning Hypothesis 8, the specific indirect effects found that teaching quality mediates the relationship that exists between innovative talent training and student academic performance ($t= 1.789$, $p= 0.043$). In regard to Hypothesis 9, the specific indirect effects demonstrated that teaching quality was the mediator of the connection between Chinese-foreign cooperation and student career development ($t= 2.562$, $p= 0.005$). In regard to Hypothesis 10, the specific indirect effects showed that the relationship between Chinese-foreign cooperation and the academic performance of students was mediated by the teaching quality ($t= 1.995$, $p= 0.023$).

Table 5. Mediation Analysis

Constructs	Path coefficient	t-statistics	p-values
Innovative Talent Training -> Teaching Quality -> Student Career Development	0.014	1.981	0.047
Innovative Talent Training -> Teaching Quality -> Student Academic Performance	0.008	1.789	0.043
Chinese-Foreign Cooperation -> Teaching Quality -> Student Career Development	0.082	2.562	0.005
Chinese-Foreign Cooperation -> Teaching Quality -> Student Academic Performance	0.043	1.995	0.023

Moderation Analysis

Table 6 and Figure 3 present the findings regarding the moderation of the epidemic situation between innovative talent training, Chinese-foreign cooperation, student career development, and student academic performance. In terms of Hypothesis 11, the findings indicated that the prevalence of an epidemic acts as a moderator in the connection between innovative talent training and the career development of students ($t= 4.792$, $p=0.0001$). In regard to Hypothesis 12, the findings indicated that the presence of an epidemic modifies the connection between innovative talent training and student academic performance ($t= 1.816$, $p=0.035$). Concerning Hypothesis 13, the findings indicated that the presence of an epidemic acts as a moderator in the connection between Chinese-foreign cooperation and the career advancement of students ($t= 2.385$, $p=0.009$). In terms of Hypothesis 14, the findings demonstrated that the presence of an epidemic acts as a moderator in the connection between Chinese-foreign cooperation and the academic performance of students ($t= 2.005$, $p=0.023$).

Table 6. Moderation Analysis

Constructs	Path coefficient	t-statistics	p-values
ES x ITT -> Student Career Development	-0.175	4.792	0.0001
ES x ITT-> Student Academic Performance	-0.089	1.816	0.035
ES x CFC -> Student Career Development	-0.095	2.385	0.009
ES x CFC -> Student Academic Performance	-0.063	2.005	0.023

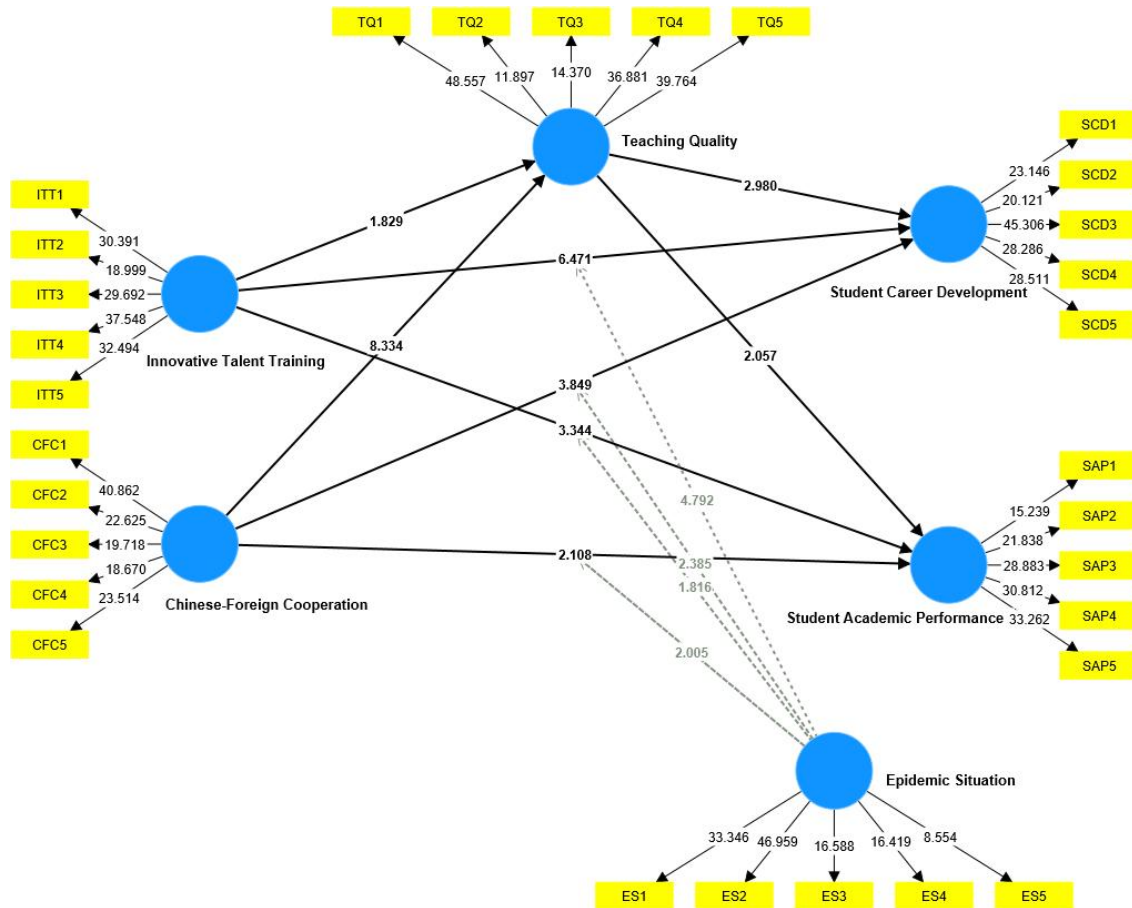


Figure 3. Structural Model

Discussion

The results of this study imply that innovative talent training significantly and favorably affects the career development of students. These outcomes are in line with earlier research that discovered an association between inventive talent development and career advancement (Ji et al., 2023). Innovative talent development programs give kids the knowledge, abilities, and attitudes they need to succeed in their future employment, which could be one explanation for this connection. Employers place a great priority on creative, critical, problem-solving, and communication abilities, which are emphasized in innovative talent training (Guzeller & Celiker, 2020). Students who obtain cutting-edge talent development may therefore be better prepared to pursue their professional objectives and be successful in the job market. Hence H1 is supported.

The results of this study indicate that creative talent development programs significantly and favorably affect students' academic progress. More evidence has emerged in recent years supporting the value of innovative talent development in raising academic performance among students. Innovative talent development programs and projects use cutting-edge teaching strategies and curriculum planning to help kids develop their creativity, critical thinking, and

problem-solving abilities (Mathur, Hwalek, Straub, & Chow, 2023). According to the study's findings, Chinese foreign corporations significantly and favorably influence students' career growth. International joint ventures and collaborations with foreign firms have grown significantly in China in recent years. These partnerships work to advance global trade and cooperation in a range of industries, including education. Chinese-foreign firms have a large and advantageous impact on students' professional growth (Tatarinova, Shvetsova, Vladimirova, Gruba, & Heberlein, 2022). The study looked into how Chinese students' career development was impacted by a partnership between Chinese and foreign corporations. The collaboration gave students the chance to take part in internships, training courses, and work shadowing experiences abroad. According to the study, students who took part in the program significantly improved their employability, job search abilities, and career preparation. Hence H2 is supported.

The study looked into the effect that a Chinese foreign firm has on the academic performance of students. Chinese and foreign corporations are increasingly partnering in a variety of industries, including education. These alliances provide chances for cross-border cooperation and communication and may have a good effect on students' academic performance. Fang (2021) found that collaborations between Chinese and foreign corporations significantly and favorably affect students' academic performance. The purpose of this study was to explore the effect that a collaboration between a Chinese company and a foreign corporation had on the academic success of students attending a Chinese institution. Students were able to connect with academics and researchers from other countries thanks to the cooperation, which also opened up prospects for students to work together on research and studies conducted in other countries. According to the findings by LaForett and De Marco (2020), students who took part in the program exhibited considerable improvements in their academic accomplishments, particularly in their capacities and skills in the area of research. Hence H4 is supported. The fifth hypothesis is to study whether or not the quality of instruction has a substantial and favorable influence on the career development of students. The caliber of instruction is an essential component that plays a significant role in the growth of students in a variety of ways. According to the findings by Karaca-Atik, Meeuwisse, Gorgievski, and Smeets (2023), the quality of instruction has a substantial and favorable influence on the career development of students. According to the findings by Beuchel et al. (2022), students who had the perception that their teachers were knowledgeable and skilled in the subject area in which they were being taught had a greater likelihood of doing well academically and being successful in their future careers. Students can be better prepared for the challenges they will face in the working world if their teachers have a comprehensive understanding of their subject matter and effectively transmit that information to their students.

Investigating whether teaching quality has a significant, beneficial effect on students' academic performance is the subject of the sixth hypothesis. One essential factor that has a big impact on how well students succeed academically is the quality of the teaching. Luo and Song (2022) found a strong and favorable relationship between teaching quality and students' academic progress. The study looked at the effects of many variables on student achievement and discovered that one of the most significant variables determining academic performance was the caliber of instruction. One way in which teaching quality can improve academic success is through the deployment of effective instructional strategies. According to research, some teaching strategies, such as active learning, and problem-based learning can be more successful at fostering student learning than conventional lecture-based strategies (Noguerón-Liu, 2020). The success of students can be promoted by teachers who are adept at applying these techniques to create stimulating and demanding learning environments. The seventh, eighth, ninth, and tenth hypotheses to investigate the teaching quality significantly mediates the relationship between innovative talent training and student career development, innovative talent training and student academic performance, Chinese-foreign corporation and student career development, and Chinese-foreign corporation and student academic performance. The relevance of high-quality teaching practices is underscored by the function that teaching quality plays in mediating the connection between creative talent training and student career development. Institutions of higher education need to put more resources into creating new ways of instructing and equipping their faculty with the tools they need to implement successful innovative talent development programs (Rohman, Marji, Sudjimat, Sugandi, & Nurhadi, 2020). In this way, they can guarantee that their students are well-equipped to handle the challenges of the modern workplace. To better prepare

students for the evolving needs of the workforce, there has been a shift in recent years toward an emphasis on innovative talent training in the classroom. Yet, the usefulness of such instruction is sometimes questioned, and the connection between unique talent training and student achievement is not always crystal evident. This connection is clarified by Lu'mu, Cahyadi, Ramli, Ruslan, and Hendryadi (2023), which indicates that the quality of instruction is a crucial moderating factor in this connection. A rise in Chinese-foreign joint ventures and the subsequent need for multilingual workers who are also fluent in other languages and cultural nuances are both results of economic globalization. As a result, universities have been asked to collaborate with major firms to better educate students for the global job market. The research also shows how important it is for colleges and universities to have an emphasis on education quality while working with Chinese and overseas businesses. As part of this mission, we must ensure that educators have access to professional development opportunities that help them increase their pedagogical and intercultural competence (Ho et al., 2023). Furthermore, it is necessary to cultivate a safe and encouraging classroom setting that inspires children to actively study and think critically.

The eleventh twelfth thirteenth and fourteenth hypotheses investigate the impact of the epidemic situation acting as a moderator in the relationships between innovative talent training and student career development, innovative talent training, and student academic performance. The epidemic situation has a negative impact on Chinese and foreign companies on students' professional and academic success. The worldwide economy, especially the labor market, has been severely impacted by the COVID-19 pandemic outbreak. In light of this, educational institutions have revised their approaches to the cultivation of creative and entrepreneurial ability. Sarwar et al. (2020) conducted a study that looked at how the current pandemic affected the connection between inventive talent development and student success. During normal times, the study revealed, creative talent training helped students advance in their chosen fields. Its effect, however, was drastically diminished during the epidemic. This shows the pandemic has reduced the efficiency of creative talent training in preparing students for the labor market. Academic performance was observed to improve with exposure to creative talent training in times of normalcy (Batini, Brizioli, Mancini, Susta, & Scierri, 2021). Its effect, however, was drastically diminished during the epidemic. This indicates that the epidemic has diminished the usefulness of creative talent training in boosting students' performance in the classroom. The research also indicates that educational institutions should modify their creative approaches to talent development in light of the new circumstances brought on by the epidemic. To provide students with the digital literacy and cooperation skills necessary for distance education, it may be necessary to place a greater focus on these methods (Sylla & Gil, 2020). Providing pupils with individualized assistance and direction in meeting the challenges given by the pandemic is also crucial. Students hoping to find employment with Chinese foreign companies have their professional development significantly hampered by epidemic conditions. According to studies, these businesses offer students several chances to try new things and broaden their horizons. Nonetheless, the impact of Chinese and foreign firms on students' ability to advance in their chosen fields is severely dampened in the wake of a pandemic (Nguyen et al., 2023). The transition to online education is a major component contributing to this moderation. Lack of access to resources, loss of motivation, and absence of face-to-face interaction with teachers are just some of the issues that might arise from learning only online (Joshi, Vinay, & Bhaskar, 2020). If students aren't prepared for the challenges of online education, a lack of motivation and support is likely to have a detrimental effect on their academic achievement. Students' stress and anxiety levels have increased, and not just because of the shift to online education. Higher levels of tension and anxiety can be observed among students because of the uncertainties surrounding the pandemic and the difficulties of online learning (Hofer, Nistor, & Scheibenzuber, 2021). Their capacity to focus, remember knowledge, and do well on tests could all suffer as a result of this added pressure.

Conclusion

The research that was conducted on the subject of the influence of innovative talent training

and Chinese-foreign cooperation on student career development and academic performance in Chinese universities in the post-epidemic era provides important insights into the factors that shape student outcomes in higher education. According to the findings of the study, creative talent training and Chinese-foreign collaboration have a favorable influence on the academic performance and career development of students, and the quality of the instruction plays a mediating role in the interaction between these two factors. The study also discovered that the pandemic scenario acts as a moderating factor in the relationship between creative talent training, Chinese-foreign cooperation, teaching quality, and student outcomes. This was one of the findings of the study. The findings of the study have significant theoretical and practical consequences for institutions of higher education, decision-makers in the field of education policy, and teachers. According to the findings of the study, improving student results in higher education may be accomplished primarily through more international collaboration, innovative talent training, and high-quality instruction. The findings of this study highlight the importance of addressing the influence that the current epidemic crisis has on educational practices. The study also has a number of flaws, such as the fact that it is a cross-sectional design and that it relies on data that participants self-report. In the post-epidemic period, more research may be able to address these constraints and provide a more thorough knowledge of the factors that determine student outcomes in higher education.

Implications

Theoretical Implications

There are various theoretical ramifications to the study on how creative talent training and Chinese-foreign cooperation affect student career development and academic performance in Chinese universities in the post-epidemic age. It first adds to the body of knowledge on career development and talent training in higher education. The study presents empirical evidence that creative talent training and Chinese-foreign cooperation can significantly influence student career growth and academic achievement. Additionally, it clarifies the balancing effects of epidemic circumstances and instructional quality. The study's findings were published in the journal *Science Translational Medicine*. It implies that Chinese-foreign cooperation can raise the caliber of instruction and training, which can benefit students' academic and career growth. The results provide credence to the notion that international cooperation can promote knowledge and higher education institutions.

Practical Implications

The study also has many useful ramifications for academic institutions, decision-makers, and teachers in higher education. To improve student career growth and academic performance, the report first recommends that higher education institutions concentrate on innovative talent training and Chinese foreign cooperation. This can be done through working together with international partners, creating collaborative programs, and giving students chances to travel abroad. The study also emphasizes the value of effective instruction in raising student results. Higher education institutions should invest in raising the quality of their instruction by giving teachers opportunities for professional growth, encouraging cutting-edge teaching strategies, and advancing the use of technology in the classroom. The study also highlights the need to address how the epidemic scenario is affecting student outcomes. Higher education institutions should devise plans to lessen the epidemic's detrimental effects on teaching and learning, such as expanding access to technology and offering assistance to students who are struggling as a result of the epidemic.

Limitation

There are a number of limitations to the study that should be considered when interpreting the findings about the influence of creative talent training and Chinese-foreign cooperation on student career development and academic performance in Chinese universities in the post-epidemic era. First, the study's cross-sectional methodology made it difficult to determine the

causes of the variables' differences. The dynamics of the links between creative talent training, Chinese-foreign cooperation, teaching quality, pandemic scenario, and student outcomes may be better understood through longitudinal studies. Second, the study used student self-reported data, which is susceptible to response bias. To give more accurate and valid measurements of student outcomes, future research could include objective indicators of academic performance, such as GPA or results on standardized tests. Third, the study was limited to Chinese universities, which would make it harder to extrapolate the results to other situations. To investigate the relevance of the findings in various circumstances, future research might expand the study to include additional nations and higher education systems.

Future Recommendation

Future research can take a number of different directions as a result of the study on the effects of creative talent training and Chinese-foreign cooperation on student career development and academic performance in Chinese institutions in the post-epidemic age. Future studies could first examine the effects of various creative talent development programs and Chinese-foreign collaboration on student results. For instance, the research could look into how study abroad opportunities, online learning tools, or experiential learning affect student results. Second, future studies might investigate the underlying processes by which creative talent development and Chinese-foreign collaboration affect student results. For instance, studies could look into how cultural interaction, linguistic ability, or international viewpoints affect academic achievement and professional growth in students. Lastly, further study might look into the effects of various epidemic scenarios on academic results. Research might, for instance, examine how economic crises, political unrest, or natural disasters affect student performance in higher education.

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References

- Abdulrahim, M. O., Sukoharsono, E. G., Saraswati, E., & Subekti, I. (2020). Investigating the impact of organizational culture and corporate governance on sustainability performance with strategic posture as mediating variable. *The International Journal of Business & Management*, 8(7). <https://doi.org/10.24940/THEIJBM/2020/V8/I7/BM2007-048>
- Al-Dmour, B. A., Al-Nawayseh, A.-H. T., Al-Tarawneh, M. A., & Hani, Z. M. B. (2023). Antecedents of Mental Disorder among Physically Inactive Employees Study of Jordanian Higher Education Institutions: Mediated Moderation of Perceived Threat of Covid-19 and Psychological Capital. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 21(1). <https://doi.org/10.57239/pjls-2023-21.1.001>
- Alfaifi, S., Bridges, S., & Arakawa, N. (2022). Developing pharmacists' competencies in Saudi Arabia: A proposed national competency framework to support initial education and professional development. *Currents in Pharmacy Teaching and Learning*, 14(10), 1256-1268.
- Amerstorfer, C. M., & Freiin von Münster-Kistner, C. (2021). Student perceptions of academic engagement and student-teacher relationships in problem-based learning. *Frontiers in Psychology*, 12, 4978.
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability (Switzerland)*, 12(20), 1-34.
- Batini, F., Brizioli, I., Mancini, A., Susta, M., & Scierri, I. D. M. (2021). Reading is a fundamental activity for the development of linguistic comprehension. *Ricerche di Pedagogia e Didattica*, 16(1), 79-86.
- Beckham, N. R., Akeh, L. J., Mitaart, G. N. P., & Moniaga, J. V. (2023). Determining factors that affect student performance using various machine learning methods. *Procedia Computer Science*, 216, 597-603.
- Behrmann, M., & Plaut, D. C. (2020). Hemispheric organization for visual object recognition: A theoretical account and empirical evidence. *Perception*, 49(4), 373-404.
- Beuchel, P., Groß Ophoff, J., Cramer, C., & Hautzinger, M. (2022). Promoting occupational health and teaching quality: The impact of a mindfulness intervention in teacher training. *Teaching and Teacher Education*, 114, 103703.
- Cherukunnath, D., & Singh, A. P. (2022). Exploring cognitive processes of knowledge acquisition to upgrade academic practices. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.682628>
- Fang, Y. (2021). Influence of foreign direct investment from China on achieving the 2030 sustainable development goals in African countries. *Chinese Journal of Population, Resources and Environment*, 19(3), 213-220.
- Fathi, J., Derakhshan, A., & Torabi, S. (2020). The effect of listening strategy instruction on second language listening anxiety and self-efficacy of Iranian EFL Learners. *SAGE Open*, 10(2). <https://doi.org/10.1177/2158244020933878>
- Gai, X., Gu, T., Wang, Y., & Jia, F. (2022). Improving career adaptability through motivational interview among peers: An intervention of at-risk Chinese college students majoring in foreign language. *Journal of Vocational Behavior*, 138, 103762.
- Gardner-Neblett, N., De Marco, A., & Ebright, B. D. (2023). Do Katie and Connor tell better stories than Aaliyah and Jamaal? Teachers' perceptions of children's oral narratives as a function of race and narrative quality. *Early Childhood Research Quarterly*, 62, 115-128.
- Goodman, G., & Dent, V. F. (2019). A story grows in rural Uganda: Studying the effectiveness of the Storytelling/Story-Acting (STSA) play intervention on Ugandan preschoolers' school readiness skills. *Journal of Infant, Child, and Adolescent Psychotherapy*, 18(3), 288-306.
- Guzeller, C. O., & Celiker, N. (2020). Examining the relationship between organizational commitment and turnover intention via a meta-analysis. *International Journal of Culture*,

- Tourism, and Hospitality Research*, 14(1), 102-120.
- Ho, H. C. Y., Poon, K. T., Chan, K. K. S., Cheung, S. K., Datu, J. A. D., & Tse, C. Y. A. (2023). Promoting preservice teachers' psychological and pedagogical competencies for online learning and teaching: The T.E.A.C.H. program. *Computers & Education*, 195, 104725.
- Hofer, S. I., Nistor, N., & Scheibenzuber, C. (2021). Online teaching and learning in higher education: Lessons learned in crisis situations. *Computers in Human Behavior*, 121, 106789.
- Jeong, K. O. (2017). Preparing EFL student teachers with new technologies in the Korean context. *Computer Assisted Language Learning*, 30(6), 488-509.
- Ji, M., Jiao, Y., & Cheng, N. (2023). An Innovative decision-making scheme for the high-quality economy development driven by higher education. *Journal of Innovation & Knowledge*, 8(2), 100345.
- Joshi, A., Vinay, M., & Bhaskar, P. (2020). Impact of coronavirus pandemic on the Indian education sector: Perspectives of teachers on online teaching and assessments. *Interactive Technology and Smart Education*, 18(2), 205-226.
- Kang, H. Y., & Lee, C. H. (2020). Effects of focus on form instruction through listening in blended learning on the development of grammar and listening skills. *Korean Journal of English Language and Linguistics*, 2020(20), 662-691.
- Karaca-Atik, A., Meeuwisse, M., Gorgievski, M., & Smeets, G. (2023). Uncovering important 21st-Century skills for sustainable career development of social sciences graduates: A systematic review. *Educational Research Review*, 100528.
- LaForett, D. R., & De Marco, A. (2020). A logic model for educator-level intervention research to reduce racial disparities in student suspension and expulsion. *Cultural Diversity and Ethnic Minority Psychology*, 26(3), 295-305
- Lang, M., Maffett, M., Omartian, J. D., & Silvers, R. (2020). Regulatory cooperation and foreign portfolio investment. *Journal of Financial Economics*, 138(1), 138-158.
- Li, C., Ma, Z., & Xi, X. (2021). Exploring the development of early reading literacy and story narrative among young children. *Journal of Chinese Writing Systems*, 5(3), 195-204.
- Li, X., & Chang, Y. C. (2019). Legal mechanism for the Sino-Foreign cooperative exploitation of the underwater cultural heritage in the South China Sea. *Ocean & Coastal Management*, 175, 144-151.
- Liu, X., Sun, L., & Tu, J. F. (2019). Effects of computer assisted language learning on learner autonomy. In *2019 IEEE International Conference on Computation, Communication and Engineering, ICCCE 2019* (pp. 124-126). Piscataway, NJ: IEEE
- Lu'mu, Cahyadi, A., Ramli, M., Ruslan, & Hendryadi. (2023). Perceived related humor in the classroom, student-teacher relationship quality, and engagement: Individual differences in sense of humor among students. *Heliyon*, 9(1), e13035.
- Luo, R., & Song, L. (2022). The unique and compensatory effects of home and classroom learning activities on Migrant and Seasonal Head Start children's Spanish and English emergent literacy skills. *Frontiers in Psychology*, 13, 1016492.
- Ma, L., Liu, J., & Li, B. (2022). The association between teacher-student relationship and academic achievement: The moderating effect of parental involvement. *Psychology in the Schools*, 59(2), 281-296.
- Marra, M. (2022). Productive interactions in digital training partnerships: Lessons learned for regional development and university societal impact assessment. *Evaluation and Program Planning*, 95, 102173.
- Mathur, A., Hwalek, M., Straub, V., & Chow, C. S. (2023). Increasing faculty support, respect, and ability to help doctoral students explore non-academic research career opportunities. *Heliyon*, 9(1), e13052.
- Matsuo, R., & Arakaki, T. (2022). Implementing a teacher training program for childcare providers with an awareness of the protection of children's human rights. *International Journal of*

Educational Research Open, 3, 100189.

Molina, E., Fatima, S. F., Ho, A. D., Melo, C., Wilichowski, T. M., & Pushparatnam, A. (2020). Measuring the quality of teaching practices in primary schools: Assessing the validity of the Teach observation tool in Punjab, Pakistan. *Teaching and Teacher Education*, 96. <https://doi.org/10.1016/j.tate.2020.103171>

Nawaz, A., & Guribie, F. L. (2022). Impacts of institutional isomorphism on the adoption of social procurement in the Chinese construction industry. *Construction Innovation*. <https://doi.org/10.1108/CI-02-2022-0035>

Nguyen, T. L., Nguyen, H. T., Nguyen, N. H., Nguyen, D. L., Nguyen, T. T. D., & Le, D. L. (2023). Factors affecting students' career choice in economics majors in the COVID-19 post-pandemic period: A case study of a private university in Vietnam. *Journal of Innovation & Knowledge*, 8(2), 100338.

Noguerón-Liu, S. (2020). Expanding the knowledge base in literacy instruction and assessment: Biliteracy and translanguaging perspectives from families, communities, and classrooms. *Reading Research Quarterly*, 55(S1), S307-S318.

Peng, X., Sun, X., & He, Z. (2022). Influence mechanism of teacher support and parent support on the academic achievement of secondary vocational students. *Frontiers in Psychology*, 13, 1698. <https://doi.org/10.3389/FPSYG.2022.863740/BIBTEX>

Pérez, M. A., Tiemann, P., & Urrejola, G. (2023). The impact of the learning environment sudden shifts on students' performance in the context of the COVID-19 pandemic. *Educación Médica*, 100801. <https://doi.org/https://doi.org/10.1016/j.edumed.2023.100801>

Pribišev Beleslin, T., & Travar, M. (2022). The importance of the OMEP ESD rating scale for building future preschool teachers' professional competencies in Bosnia and Herzegovina. *International Journal of Early Childhood*, 54(1), 139-164.

Rohman, M., Marji, Sudjimat, D. A., Sugandi, R. M., & Nurhadi, D. (2020). Online learning in higher education during Covid-19 pandemic: Students' perceptions. *Journal of Talent Development and Excellence*, 12(2s), 3644-3651.

Sandra Marcelline, T. R., Chengang, Y., Ralison Ny Avotra, A. A., Hussain, Z., Zonia, J. E., & Nawaz, A. (2022). Impact of green construction procurement on achieving sustainable economic growth influencing green logistic services management and innovation practices. *Frontiers in Environmental Science*, 9. <https://doi.org/10.3389/fenvs.2021.815928>

Sarwar, H., Akhtar, H., Naeem, M. M., Khan, J. A., Waraich, K., Shabbir, S., . . . Khurshid, Z. (2020). Self-reported effectiveness of e-learning classes during COVID-19 pandemic: A nationwide survey of Pakistani undergraduate dentistry students. *European Journal of Dentistry*, 14(S01), S34-S43.

Saville, J. D., & Foster, L. L. (2021). Does technology self-efficacy influence the effect of training presentation mode on training self-efficacy? *Computers in Human Behavior Reports*, 4, 100124.

Steeb, D. R., Zeeman, J. M., Bush, A. A., Dascanio, S. A., & Persky, A. M. (2021). Exploring career development through a student-directed practicum to provide individualized learning experiences. *Currents in Pharmacy Teaching and Learning*, 13(5), 500-505.

Sylla, C., & Gil, M. (2020). The procedural nature of interactive digital narratives and early literacy. In *Interactive Storytelling: 13th International Conference on Interactive Digital Storytelling, ICIDS 2020* (pp. 258-270). Cham, Switzerland: Springer.

Tatarinova, M. N., Shvetsova, M. G., Vladimirova, E. N., Gruba, N. A., & Heberlein, F. A. (2022). Emotional value technology of foreign-language education for the development of speech communication abilities. *Perspektivy Nauki i Obrazovania*, 58(4), 281-306.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5). <https://doi.org/10.3390/IJERPH17051729>

Wang, M., Liu, J., Rahman, S., Sun, X., & Sriboonchitta, S. (2023). The effect of China's outward

- foreign direct investment on carbon intensity of Belt and Road Initiative countries: A double-edged sword. *Economic Analysis and Policy*, 77, 792-808.
- Wu, Y., Foong, L., & Alias, N. (2022). Motivation and grit affects undergraduate students' English language performance. *European Journal of Education Research*, 11(2), 781.
- Xu, X., Yu, S. J., Pang, N., Dou, C. X., & Li, D. (2022). Review on a big data-based innovative knowledge teaching evaluation system in universities. *Journal of Innovation & Knowledge*, 7(3), 100197.
- You, Y. (2022). Online technologies in dance education (China and worldwide experience). *Research in Dance Education*, 23(4), 396-412.
- Zhang, P., Nie, T., Ma, J., & Chen, H. (2022). Identification of suitable areas for African swine fever occurrence in China using geographic information system-based multi-criteria analysis. *Preventive Veterinary Medicine*, 209, 105794.
- Zhou, J. (2020). Design of AI-based self-learning platform for college English listening. In *2020 2nd International conference on Machine Learning, Big Data And Business Intelligence (MLBDBI)* (pp. 544-547). Piscataway, NJ: IEEE.
- Zivan, M., Gashri, C., Habuba, N., & Horowitz-Kraus, T. (2022). Reduced mother-child brain-to-brain synchrony during joint storytelling interaction interrupted by a media usage. *Child Neuropsychology*, 28(7), 918-937.