

Research Article

Cite this article: Khawaja, S., Andleeb, N., Raza, S. H., Yousaf, M., Mahmood, N., Mahmood, T., & Ogadimma, E. C. (2025). Teaching Pedagogies for Students' Sustainable Development in Universities: The Underlying Mechanism of Cross-Cultural Communication. *Educational Process: International Journal*, 16, e2025221
<https://doi.org/10.22521/edupij.2025.16.221>

Received February 13, 2025

Accepted April 15, 2025

Published Online May 12, 2025

Keywords: Teaching pedagogy; Cross-cultural communication; Sustainable development; Chinese students; Chinese universities.

Author for correspondence:

Muhammad Yousaf

 m.yousaf@uog.edu.pk

 Affiliation (Centre for Media and Communication Studies, University of Gujrat, Gujrat 50700, Pakistan)

Teaching Pedagogies for Students' Sustainable Development in Universities: The Underlying Mechanism of Cross-Cultural Communication

Sarwar Khawaja , Naima Andleeb , Syed Hassan Raza , Muhammad Yousaf , Nasir Mahmood , Tahir Mahmood , Emenyeonu, C. Ogadimma 

Abstract

Background/purpose. Sustainable development is a fundamental concern of today's economic and political world; therefore, several steps have been taken to promote sustainable development through students by implementing advanced and internationally accepted teaching pedagogies. Achieving the goals for sustainable development in universities is a central concern worldwide, especially when their students need to deal with cross-cultural communication. The inadequacies of existing frameworks of teaching pedagogies for students' sustainable development in cross-cultural communication are addressed by the UN Sustainable Development Goals for 2030. By proposing the establishment of an inclusive framework in the context of teaching pedagogies, the purpose of this paper is to explore students' sustainable development along with cross-cultural communication as a mediator

Materials/methods. A cross-sectional research design investigated the underlying mechanism of cross-cultural communication among students. Three hundred forty-two respondents were obtained from five universities in China at different academic levels; therefore, data analysis was performed using SmartPLS and SPSS.

Results. It was identified that Chinese universities have unreasonable expectations regarding the sustainable development of teaching pedagogies for students studying in Chinese universities, making their career prospects unsustainable.

Conclusion. The study validates the theoretical implications of the intercultural competency theory and social learning theory. Hitherto emphasizes the cultural competence training workshops for the teachers and faculty administrative staff for better student experiences and sustainable academic growth. The study's conclusions suggest that higher education institutions must develop a clear framework incorporating cultural competence programs for capacity building of their workforce elements to increase sustainability among national and international students.



OPEN ACCESS

© The Author(s), 2025. This is an Open Access article, distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction, provided the original article is properly cited.

1. Introduction

In 1987, the Brundtland Commission proposed the concept of sustainable development, which reported that development meets the requirements of current generations without compromising the ability of future generations to meet their needs and requirements. UN's goal for 2030 is to integrate the practices, values, and principles of students' sustainable development into the fields of education through teaching. This research aims to encourage pedagogies of teaching in academia, which will help them create a more sustainable future. One of the most important factors influencing the teaching pedagogies for students' sustainable development is enabling them to succeed in cross-cultural communication while performing on an international platform.

Implementing teaching pedagogies in Chinese universities for student sustainability is a reasonably new teaching system that motivates academicians to adopt creative and innovative techniques. It has emerged as part of an evolving transition as globalization in education has increased inside the global economy (p. 2). The Chinese government and many funding agencies are arranging to support the implementation of innovative pedagogies in universities, which inculcate in students a sense of global solidarity for sustainable development. There is a call from the literature and academicians to reformulate the teaching pedagogies to address the proposed sustainability goals. Therefore, following new teaching pedagogies in universities is important while students are dealing with cross-cultural contexts.

Cross-cultural communication is now becoming well-known to other cultures, and more or less, cultures are now submerging in other cultures due to globalization and the emerging role of media. Students constitute a significant part of this experience since they can study in any other country. Cross-cultural study has numerous advantages and emerging trends in internationalization and international education. As a result, cross-cultural shifts among international students are important global topics since they impact their behaviours, academic achievements, and professional viability. While the ever-increasing trend of globalization arose, students were forced to obtain education from other countries, which requires a language and proper teaching pedagogies to help them connect with another world. Therefore, the focus should be on developing proper teaching strategies by learning one of the linking languages worldwide, which connects people from various disciplines and countries. Most social media and businesses operating cross-culturally require high intellectual skills and knowledge to deal with matters that only come with education to stay sustainable. Numerous studies highlighted the issue of teaching pedagogies for the sustainable development of students studying in Chinese universities (Xia et al., 2024).

However, previous research has indicated the critical underlying mechanism of cross-cultural competence in determining pedagogical effectiveness (Chadha & Relly, 2024; Omar, 2024). For example, studies have highlighted that it is particularly challenging for culturally diverse students (Dimitrov & Haque, 2016). In this standard, studies found that students from different cultures encounter challenges during their initial academic years at university (Ma, 2018). Many struggle to adjust to teaching styles or pedagogies because they must acclimate to their new academic and socio-cultural environment. On the other hand, literature has identified that students in higher education must learn discipline-specific abilities and thinking methods; employing these talents autonomously becomes one of the challenges of their cross-cultural academic transition (Dimitrov & Haque, 2016; Xia et al., 2024).

Therefore, pedagogical and cultural competencies play a vital role in reducing cultural differences and giving students better learning experiences that can lead them toward sustainable growth in their eventual academic target (Xia et al., 2024). This aligns with the tenets of intercultural communication competence theory (Chadha & Relly, 2024; Koester & Lustig, 2015). The theory noted that cultural understanding can facilitate adjustment to a new environment and is critical for

sustainable academic development (Chadha & Relly, 2024). However, little effort has been made to advance these theoretical notions in the context of education. Some earlier studies (see Corney & Reid, 2007) focused mainly on the role of academics and subject matter in the student's transition. Later, some other scholars (see Lozano et al., 2017; Martín-Garin et al., 2021) focus on the pedagogical approaches in determining the sustainable development of studies. Therefore, there has been a lack of understanding of cross-cultural-related discipline-specific research. Furthermore, research on teaching methods and students' long-term development in Chinese universities is uncommon. The current study is trying to fill the gap in students' sustainable development in cross-cultural communication while exploring the effects of implementing teaching pedagogies.

To address the problems of teaching pedagogies in Chinese universities and align with intercultural communication competence theory (Koester & Lustig, 2015), this study is trying to fill the gap highlighted by scholars and academicians who are constantly struggling to formulate new pedagogies to motivate students on sustainability and help achieve necessary lifestyle issues. The problem is also particularly pertinent as many Chinese universities, like their counterparts elsewhere, are increasingly implementing innovative pedagogies for teaching. These pedagogies are used to evaluate the work of university students with a particular focus on students' sustainable development (Padwa, 2020) for their future in an ever-increasing trend of globalization (Georgeson & Maslin, 2019; Georgeson et al., 2017; Li & Lin, 2016; Ogbogu et al., 2023; Sengupta et al., 2020; Zamora-Polo et al., 2019). Therefore, this article examines whether Chinese universities adopt effective research pedagogies to ensure their sustainability in cross-cultural communication.

2. Literature Review

2.1. Students' Sustainable Development

A new paradigm of education for students' sustainable development has recently emerged, and it involves several fundamental elements that must be specified to contribute to sustainable development. Researchers and practitioners are discussing several factors: the involvement of teachers, the contribution of students, the contribution of institutions, the role of the environment, cultural involvement, and the role of cross-cultural communication. Therefore, this paper examined teaching pedagogies for students' sustainable development in Chinese universities with cross-cultural communication as a mediator. Students' sustainable development, according to researchers, is defined as the process of expanding students' learning, communication, and genuine freedoms in their personal and professional lives (Howson & Kinchin, 2022; Kaijun & Ichwatus Sholihah, 2015; Shotte, 2013). Students' sustainable development can be defined as current and future development that does not endanger the development of future generations (Chander et al., 2020).

Students' sustainable development can also be defined as "the growth of students in the long run (Li & Lin, 2016; Publishers, 2018). Studies have proposed important factors that universities should focus on, which significantly contribute towards sustainable development in cross-cultural communication and learning international languages, such as learning new teaching skills for sustainability. A large population aims to establish processes that help students achieve sustainable goals in all aspects of their lives, including personal and professional growth. UNESCO strives to foster cross-cultural learning and heritage so that every child and citizen can access high-quality educational opportunities. Literature highlights the importance of teaching for the sustainable development of students from all walks of life, especially in cross-cultural communications.

2.2. Teaching for Students' Sustainability

In this paper, we explore the ideas of students' sustainable development if their universities focus on teaching pedagogies and implementation. Several studies have highlighted the importance of teaching pedagogies for sustainability while performing cross-cultural communication. After the

pandemic in 2019, technology grew rapidly and linked the whole world to one platform, which makes life for this generation much easier than before, but only those who are prepared can win on these grounds. Therefore, many studies highlighted the high need to teach and develop future skills for the students by the institutions for sustainability.

Teaching for students' sustainability should be focused on institutions, and it is necessary to formulate and implement the proper teaching pedagogies to teach a student (Kaijun & Ichwatus Sholihah, 2015; Shotte, 2013). Simultaneously, teaching pedagogies suggest that what, how, who, and where we teach give us an exciting role to play in this emerging paradigm of cross-cultural communication and the broader societal changes (Alshahrani, 2017; Georgeson & Maslin, 2019). This paper is making efforts to strengthen this connection. The reviewed studies illustrate that the growth and sustainability of individuals or institutions are higher than those who neglect the importance of learning or teaching pedagogies for personal and professional development (Asif et al., 2020).

The competency of teaching pedagogies allows them to actively move in the international market (Miller, Worlds, & Dowie-Chin, 2020). Cultural teaching is a long and complex process concerning something more than language use. In doing the above activities, the aim is to increase students' awareness and develop their curiosity towards the target cross-culture as well as their own, helping them to make comparisons among cultures. According to Asif et al. (2020) and Zhang et al. (2020), innovative teaching methods should be a compulsory part of the syllabus to move in an ever-increasing competitive global market. Scholars of sustainable development from China are influenced to pay particular attention to teaching and implementing pedagogies for university students (Chander et al., 2020; Zamora-Polo et al., 2019). This study focused on the phenomenon of pedagogies to achieve sustainable development goals.

2.3. Teaching Pedagogies

The literature proposes that teachers focus on their experience and understand why they do what they do to teach effectively. Awareness is a central aspect of pedagogy, and this entails knowledge of the curriculum, students, factors influencing teaching and learning, how to teach the curriculum, and one's teaching abilities (Zhang et al., 2020). The reviewed literature about teaching pedagogies focuses on three primary schools of thought (Miller et al., 2020). Teaching pedagogies is the most widely researched area in teaching literature for students' sustainable development. This is understandable, as considerable changes occur when a lecturer delivers an academic subject using a secondary language. Current research in this field is performed mainly through assumptions that indicate monolingual preferences (Fajri & Okwar, 2020).

Pedagogies are primarily defined as strategies or teaching methods. The teaching pedagogies adopted by teachers outline their activities and inform the actions and other teaching methods, considering theories and learning approaches and understanding the needs and wants of students and the backgrounds and interests of individual students. In the instructional process, two parties (the teacher and the student) collaborate on a program (the subject matter) that is intended to change the learners' experience and understanding in some way. As a result, observations about the learner, the teacher, and the subject matter must come first, followed by consideration of the importance of group life and the institution (Georgeson & Maslin, 2019; Kaijun & Ichwatus Sholihah, 2015; Schwartz, 2007). According to the beliefs and perceptions of teachers, universities must implement different strategies for successful teaching because they play a significant role in students' sustainable development in the future (Farooq et al., 2018).

The pedagogy of teaching is an advanced teaching strategy that aims to empower participants with contemporary theoretical developments in language teaching (Georgeson & Maslin, 2019; Zhang et al., 2020). It also aims to develop critical thinking skills among participants who teach in diversified manners (Li & Lin, 2016). This study aims to raise and consolidate awareness of the

principles and practices of teaching to students of Chinese universities. The participants of this course will be exposed to various techniques and their theoretical bases to help them make appropriate decisions.

2.4. Cross-Cultural Communication

Cross-cultural communication is the study of how people from various cultural backgrounds communicate with one another in similar and distinct ways and how they attempt to communicate across cultures. "When in Rome, behave like a Roman," but this proverb does not mention that it takes time to understand "Roman" behaviour. Ultimately, this creates a direct gap in cross-cultural communication. Mistakes in cross-cultural communication can quickly transform a promising business into a disaster.

It might negatively affect public relations, negotiation, mass media communication, corporate campaigns, and meetings. The modern world is rapidly evolving and becoming more diversified (Farooq et al., 2018). As a result, students must develop increasingly complicated abilities and knowledge. However, neither educational institutions nor human capability to learn and acquire "new" skills are fully prepared to meet the demands of the modern world.

Because of the rise of global commerce, technology, and the Internet, cross-cultural communication has become strategically crucial to businesses. Understanding cross-cultural communication is critical for anyone who manages a multicultural staff or expects to conduct business worldwide. This form of communication requires understanding how people from various cultures speak, communicate, and view the world around them. Cross-cultural exposure contributes to a student's long-term personal and professional development (Georgeson & Maslin, 2019; Kaijun & Ichwatus Sholihah, 2015; Schwartz, 2007).

Understanding various habits, beliefs, and communication styles is fundamental to cross-cultural communication. Significant elements affecting cross-cultural communication include language disparities, cultural context, nonverbal differences, and power gaps. The emerging trend of globalization inclines the intentions of scholars of sustainable studies toward cross-cultural communication for the sustainability of national and international students. One of the study's peculiarities is examining cross-cultural communication as mediation in the context of students' long-term growth. Therefore, the United Nations' 2030 goals of sustainability illustrate numerous factors that should be considered for the growth of a nation with no poverty, zero hunger, peace and justice, clean energy, economic growth, good health, gender equality, sustainability, international business, especially education for global sustainability. It is identified that the most critical element of a nation's growth and sustainability is focusing on international standards of education and the implementation of those in their institutions. Therefore, the current scenario is framing the students' sustainable development while educating them, which is the key for them to move quickly in a cross-cultural context. The scholar of this study is working to explore the mediating effect of cross-cultural communication in Chinese universities for the sustainable development of students. This is especially important for Chinese education program providers, as China is now recognized as a culturally diverse nation through its varied policies.

2.5. Hypothesis Development

Given that students' sustainable development is a specific context to pay attention to (Richards, 2017), we focus on teaching in Chinese universities for students' sustainable development. Studies have proven that two common factors, namely teaching pedagogies and cross-cultural communication, have consistently been consequential for students' sustainable development among national and international students (Richards, 2017; Romylos, 2020). The literature illustrates the

profound roles of teaching pedagogies to students for sustainable development in the cross-cultural context of students studying in Chinese universities (Natia Davitishvili, 2017; Wang & Zhan, 2020).

The implementation of teaching pedagogies in the universities of China also suppresses the positive effects on students' future sustainable development (Valizadeh & Soltanpour, 2020; Whatley et al., 2020). Abiding by the teaching pedagogies is an effective way to increase students' interest in learning the language for their better future and sustainability. This is fundamental when entering the international market and dealing with people from diverse cultures. From the viewpoint of social cognitive theory, teachers' beliefs about teaching and learner learning are influenced by the cultural environment, and more importantly, the cross-cultural context of learning is a vital consideration (Dogancay-Aktuna & Hardman, 2018; Fajri & Okwar, 2020).

Despite the role of teaching pedagogies in students' sustainability, few empirical studies have specifically focused on their structural relations in cross-cultural communication in Chinese universities. More importantly, the mediating role of cross-cultural communication in the associations between teaching pedagogies and students' sustainable development has yet to be fully explored.

Moreover, this study investigated the relationships between students' sustainable development, teaching pedagogies, and cross-cultural communication of Chinese university students. Based on the discussion above, we proposed the hypothesized model in Figure 1.

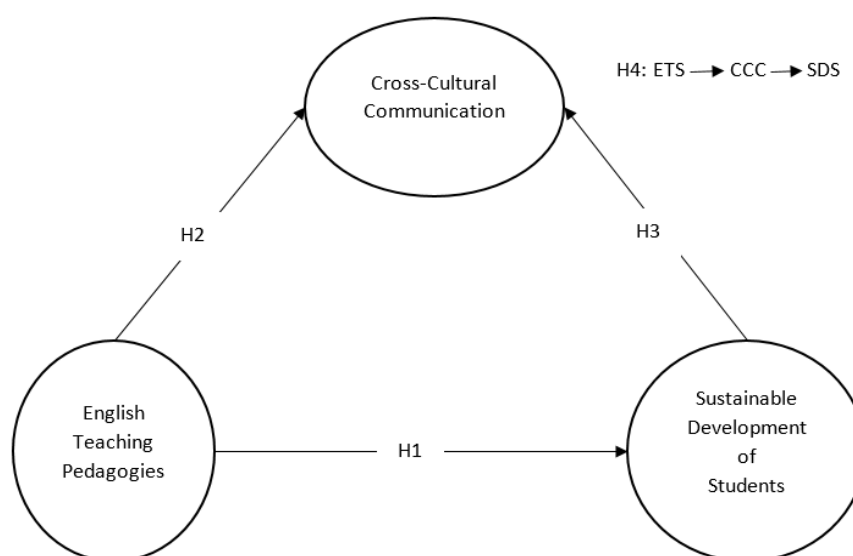


Figure 1. Conceptual Framework

Teaching pedagogies are used for personal, professional, and institutional development, which helps develop sustainable habits in students. For students' voices to be heard, a culture must exist in which students believe they may express themselves honestly and that their teachers will listen. Institutions believe that a teacher and the strategies he developed and implemented significantly contribute to developing the habits to appropriately respond in an international environment while dealing with cross-cultural communication. It was designed to improve their relationships by listening to the students and paying attention to their needs. One teacher's learning log can be attributed to the progress from an "F" to the targeted "C" grade and an improved teaching attitude. A study (Shotte, 2013; Tan, Farashaiyan, Sahragard, & Faryabi, 2020) pointed out in its impact report that the role of teachers who improve their pedagogies is vital; they need to believe and be confident in their capacity for their growth and improvement. The effort is required to challenge previous beliefs about teaching and implement innovative pedagogies to attain the students' sustainable development.

H1: Teaching pedagogies positively affect the students' sustainable development.

Teaching pedagogies can be utilized at universities to assist teachers in conveying diverse topics to students and simulating business situations in practice. Instructors have always been concerned about choosing effective teaching strategies that maximize students' learning. As a result, a growing and diverse corpus of research is focused on evaluating instructional tactics to determine their efficacy in accomplishing learning objectives, such as lecture notes and handout packages (Hanif, 2011; Yassin et al., 2020), class debates (Doan, 2017), videotaped role-plays (Kok & McDonald, 2017), live case studies (Alshahrani, 2017), internships (Farooq et al., 2018), simulations (Omar & Gomaa, 2020), cross-cultural communication learning and techniques (Ma, 2018; McKay, 2004), cooperative business communication (Hendrikse et al., 2018; Inanlou & Ahn, 2017), student-operated businesses at national and internal level (Ramdhani et al., 2017), and online Web courses and online discussions (Cheng et al., 2017; Tianya, 2015). Therefore, a university is vital in achieving sustainable development goals for students, institutions, and society by appropriately incorporating its faculty. The literature illustrates that adopting and implementing proper teaching pedagogies can help students communicate effectively cross-culturally.

H2: Teaching pedagogies positively affect cross-cultural communication.

Globalization hastened the trend of nationalizing education in numerous institutions worldwide, including Chinese institutions (Aboelmaged, 2018; Martin, 2017). The emerging challenge for educational institutions is managing students' sustainable development in cross-cultural communication and overcoming cross-cultural teaching challenges that affect students' sustainable development (Aguinis et al., 2019; Memon et al., 2017). Knowing is the main requirement for students to study at an international level, relocate, or do business internationally. Developing countries like China increasingly welcome international culture by accepting international students and employees on a broader scale (King, 2014; Yassin et al., 2020). Scholars of sustainability from China are highlighting the ever-increasing demands of teaching for better communication at the cross-cultural level for their students' sustainable development. Previous literature argued that it might affect students' future opportunities if they participate in sustainable development, which leads to the third hypothesis of the study:

H3: Cross-cultural communication positively affects the students' sustainable development.

Teaching pedagogies are used both as a means of communication and as a source of personal, professional, and institutional development. Cross-cultural communication studies have to contend with exhaustive materials and methodologies used in teaching, and the implementation of pedagogies is highly culture-bound. Many teachers take it for granted, but the UNIDO Report (2016) ensures that the materials and procedures are the most sophisticated and practical. This strategy has been chastised for ignoring reality. If teachers do not define the underlying assumptions, learners may react with contempt and animosity, using their cultural framework as a yardstick (Guo et al., 2020; Yassin et al., 2020). Teachers should know that inappropriate application strategies can impede a student's learning. Learners should be aware of cultural values and communication patterns. Previous research has aided in developing many theoretical methods as pedagogies that can assist instructors and learners in understanding cultural differences and overcoming ethnocentrism.

Learners must understand how to address others, disagree with them, express gratitude, and make requests in a culturally appropriate manner (Tsukamoto, 2014; Voronkova et al., 2019). The present paper looks at cross-cultural communication among teaching pedagogies and students' sustainable development. Cross-cultural communication and teaching pedagogies help teachers enhance awareness of the students' cultural and social metamorphoses of the language they are learning and their native language. Many factors influence cross-cultural interactions (Yousaf et al.,

2022). The findings of this study will likely have ramifications for students' long-term growth and learning culture in teaching methods.

H4: *Cross-cultural communication is a positive mediator between teaching pedagogies and students' sustainable development.*

3. Research Design

The study utilized a cross-sectional research design, vis-à-vis a survey method, to explore students' sustainable development while studying in Chinese universities. It investigates learning in different cultural contexts (Tseng et al., 2020). This quantitative study aims to examine the effect of teaching pedagogies on students' sustainable development while examining the mediating role of cross-cultural communication. This study's participants were from the top 10 Chinese universities. According to Jonker & Pennink (2010), 384 respondents were required (Krejcie & Morgan, 1970). The data were collected from the top ten Chinese university students. Most respondents were from different international countries, and the survey questionnaire was in English, as students from all cultures use it as the medium of instruction. The primary data for this study were collected through different methods: a survey questionnaire and an online questionnaire (Jonker & Pennink, 2010; Vincenzo et al., 2014). The 450 questionnaires (see Appendix for questionnaire) were distributed to teachers from the ten top universities in China and will be distributed to their former and current students throughout December 2020. The received and usable questionnaires were 342 for the final quantitative analysis. Thereby, the quantitative data assisted in understanding the students' learning challenges in cross-cultural communication, as they are known to come from a variety of cultural and educational backgrounds and different native languages, and these data assisted in forming the overall picture related to the current study's research objectives and questions (Tham et al., 2021).

Table 1. Profile of Survey Respondents

Respondents Profile	Category	Distribution %
Age	18 to 25	24.5%
	25 to 30	40.5%
	30 to 35	29.5%
	35 and above	5.5%
Type of Study	Diploma	9.5%
	Bachelors	40%
	MS by Course Work	30.5%
	MS by Research	14.5%
	PhD	5.5%
Gender	Male	61.5%
	Female	38.5%
Year in study	First	54.5%
	Second	20.5%
	Third	14.5%
	Fourth	10.5%

4. Results

4.1. Measurement Model Assessment

This study used Smart-PLS to analyze and test the hypothesis; the Smart-PLS estimates were based on Hair and Ringle (Hair et al., 2014). The measurement and path models were analyzed using 342 responses (Hair et al., 2014). The sample size of 342 aligns with the recommended (see Hair et al., 2014) 10 sample size ratios with the number of items. This study used a 27-item questionnaire (see Appendix 1); the minimum requirement was 270 for using the PLS-SEM. The data collection process was accomplished very carefully so there would not be any missing values in the data. As a result, SPSS was used for data screening, which included removing outliers and confirming the data's normality, and Harman's single factor was employed to test for sample bias. The level of measurement determines the statistical tests to be used to analyze data (Mahmood & Yousaf, 2024). Table 1 shows the findings of this evaluation. On the other hand, Figure 1 depicts the measurement model, in which all of the study's constructs are reflective.

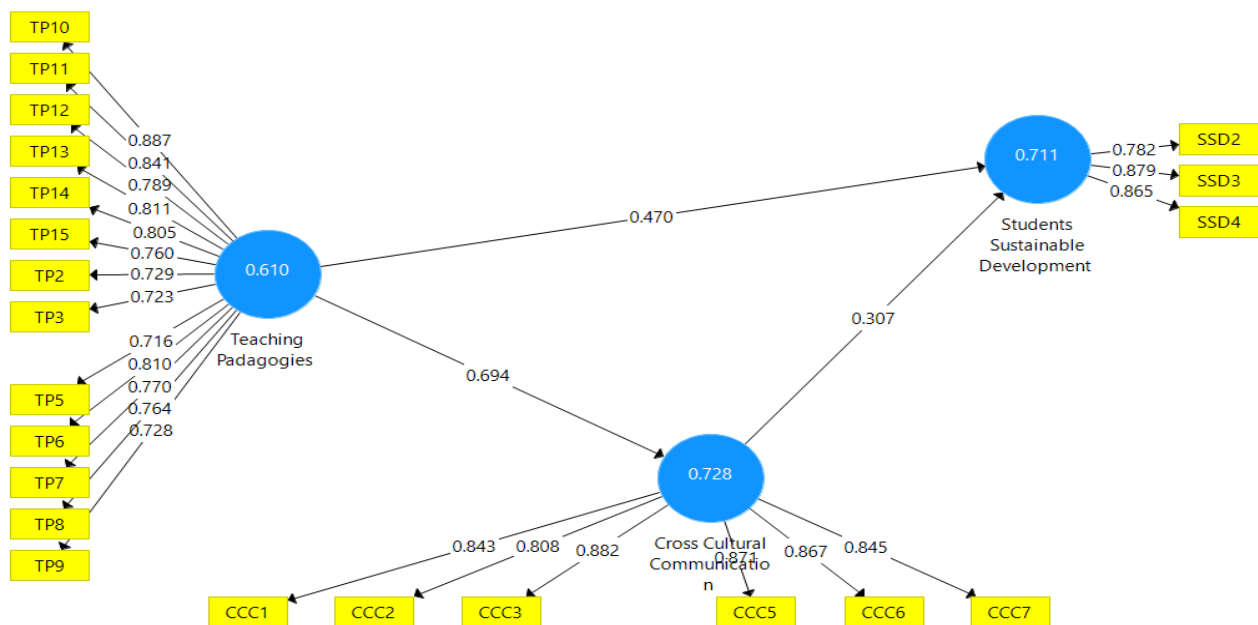


Figure 2. Measurement Model

The empirical analysis was performed to determine the structural model's strength and quality, and all test results were satisfactory. Figure 1 shows the results and values for all variables. According to (Hair et al., 2014), the required cut criteria for the AVE of a construct is 0.5 or above 0.5. If a construct loaded below this criterion, researchers must drop the items that were less than 0.7. To achieve the value of AVE and CR as per the criterion suggested (Hair et al., 2011), this study dropped items from the students' sustainable development (SSD1), two items from teaching pedagogies (TP1 and TP4), as well as one item from cross-cultural communications (CCC4). The deletion of the items was conducted systematically by deleting them individually, starting from the smaller value (Hair et al., 2016). The deleted items were not more than 20% of each construct. Therefore, items CCC4, SSD1, TP1, and ETP4 were retained despite low loading. As per the recommendation, the study's items loading less than 0.7 can be retained if the AVE is 0.5 or above (Hair et al., 2011; Jr, Matthews, & Matthews, 2017; Sarstedt et al., 2016).

Table 2. Constructs Internal Validity and Item Measurement Loadings

Items	Mean	Standard Deviation	Teaching Pedagogies	Students' Sustainable Development	Cross-cultural Communication
CCC1	3.664	0.811	0.843		
CCC2	3.645	0.807	0.808		
CCC3	3.716	0.835	0.882		
CCC4	3.638	0.834	0.871		
CCC5	3.661	0.821	0.867		
CCC6	3.646	0.787	0.845		
CCC7	3.650	0.783	0.843		
CCC8	3.598	0.895	0.808		
TP1	3.830	0.901		0.729	
TP2	3.771	0.901		0.723	
TP3	3.683	0.839		0.716	
TP4	3.720	0.821		0.810	
TP5	3.734	0.903		0.770	
TP6	3.716	0.891		0.764	
TP7	3.738	0.906		0.728	
TP8	3.675	0.832		0.729	
TP9	3.491	0.921		0.887	
TP10	3.561	0.907		0.841	
TP11	3.524	0.892		0.789	
TP12	3.557	0.923		0.811	
TP14	3.712	0.923			
TP15	3.694	0.908			
SSD1	3.697	0.847			0.579
SSD2	3.579	0.957			0.782
SSD3	3.627	0.823			0.879
SSD4	3.565	0.847			0.865
Cronbach's alpha			0.812	0.929	0.881
Composite reliability			0.870	0.938	0.905
AVE			0.577	0.559	0.546

The discriminant validity is good, as shown in Table 3, because each latent construct's AVE is more significant than its highest squared correlation with any other latent construct in the model. The findings of the measurement model evaluation are shown in Figure 1, Table 1, and Table 2. Before addressing the research questions, the data must be run through correlation. Correlation is demonstrated via discriminant validity. Fornell and Larcker (1981) stipulated that the square root of AVE for each construct must be greater than its correlation with other constructs. Table 3 shows the inter-construct correlation matrix, with the square root of the AVE highlighted in bold.

Table 3. Convergent and Discriminant Validity

	Students' Sustainable Development	Teaching Pedagogies	Cross-Cultural Communication
Cross-Cultural Communication	0.739		
Teaching Pedagogies	0.618	0.748	
Students' Sustainable Development	0.607	0.518	0.759

4.2. Structural Model Assessment

After performing the measurement model test, which is the first step of analysis from Smart-PLS3, it is compulsory to run the structural model to test the hypothesis of the formulated model (Hair et al., 2014). Different criteria are required for structural model evaluation; this evaluation was done by utilizing the PLS algorithm approach and resampling approaches (bootstrapping). The independent construct, the teaching pedagogies, is a well-investigated variable to explain the students' sustainable development. The formulated hypotheses of the current study were tested from Smart-PLS and confirmed according to the results. In contrast, all of the hypotheses, H1, H2, and H3, met the criteria $p < 0.01$ and $p < 0.05$. The two-tailed bootstrap was run with 1000 sub-samples at 0.01 and 0.05 significance levels. to get the t-statistics and standard error for the complete sample and two sub-samples (Joseph F Hair, Hult, Ringle, & Sarstedt, 2014).

Table 4. Hypothesis Testing

S.No	Hypothesis	Path Coefficient	P-Value	T-Value	Hypothesis Status
H1	Teaching Pedagogy → Students' Sustainable Development	0.470	0.000	8.524	Supported
H2	Teaching Pedagogy Cross-cultural communication	0.694	0.000	21.540	Supported
H3	Cross-cultural Communication → Students' Sustainable Development	0.307	0.000	4.609	Supported

* $P \leq .05$. ** $P \leq .01$.

The results of the structural model illustrated in Table 3 showing all of the paths are significant. Besides, table 3 shows that the path relationships between teaching pedagogy and students' sustainable development are significant ($\beta = 0.470$, $p = 0.000$). Furthermore, a strong relationship

exists between teaching pedagogies and cross-cultural communication ($\beta = 0.694$, $p = 0.000$). The association between teaching pedagogies and students' sustainable development ($\beta = 0.298$, $p = 0.000$) is also noteworthy. The third hypothesis is that the relationship between cross-cultural communication and students' sustainable development is significant ($\beta = 0.307$, $p = 0.000$), as shown in Figure 3.

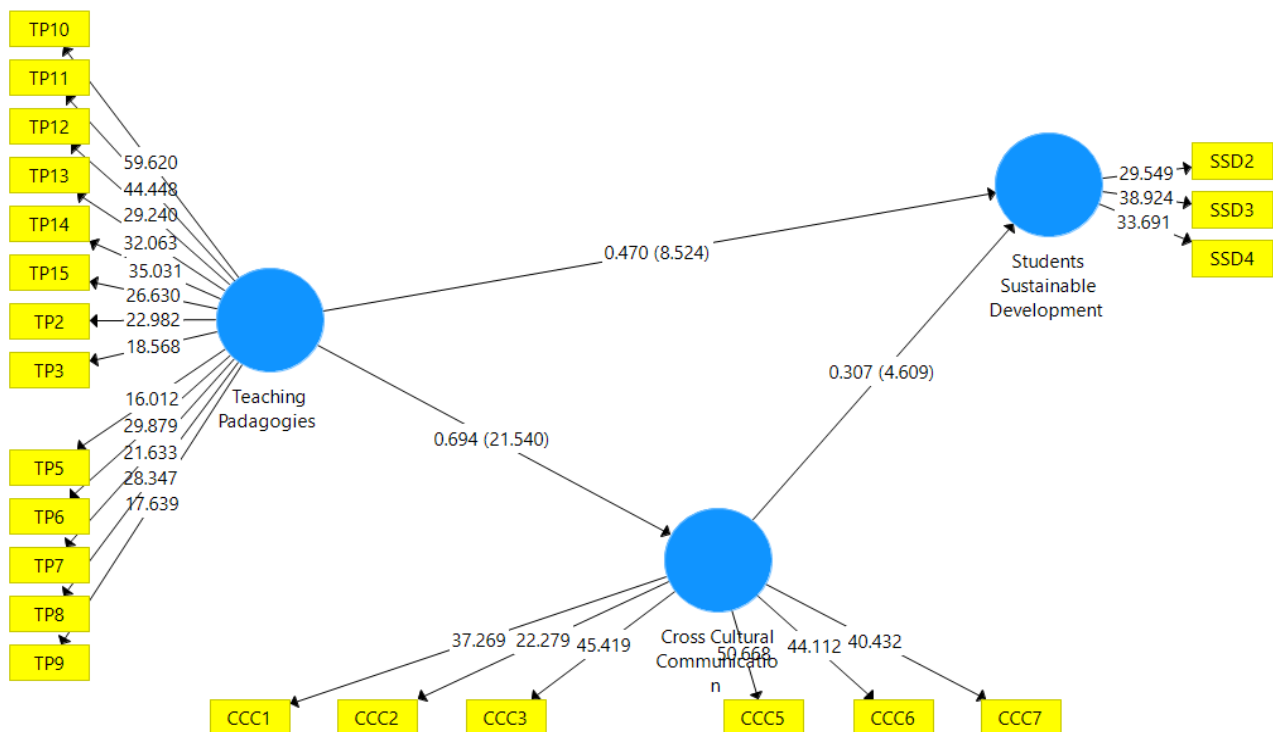


Figure 3. Structural Model

The assessment of the path (β , t-value, and p-value) confirms the hypothesis and establishes the impact of the formulated variables. Table 3 illustrates the path coefficients and the significance of the hypothesis. The significant results indicate that adequately implementing teaching pedagogies in Chinese universities has contributed to students' sustainable development.

4.3. Mediation Analysis

As proposed by Baron and Kenny (1986), mediators have a significant impact when the links between the predictor variable (the DVs) and the independent variable (the IVs) are assessed. In practice, the model is run with and without a mediator to see if there is a mediating impact. Herein, knowledge sharing was run with all the measures and predictor variables of employee creativity, along with motivation as the mediator. Bootstrapping was used following Preacher & Hayes (2008) to run the mediation analysis. The mediation test illustrates that cross-cultural communication mediates the relationship between teaching pedagogies and students' sustainable development.

Table 5. Mediation Analysis

		Beta value	SE	T-Value	P-Values	Decision
H4	Teaching Pedagogies → Cross-cultural Communication → Students Sustainable Development	0.213	0.046	4.643	0.000	supported

* $P \leq .05$.

** $P \leq .01$

The results in Figure 1 and Figure 2 illustrate that cross-cultural communication significantly mediates teaching pedagogies and students' sustainable development. The direct path t-values are 4.012, and Hair proposed a threshold value of 1.976 (Hair et al., 2014). The path coefficients (direct and indirect) are significant, according to Preacher and Hayes (Preacher & Hayes, 2008), for computing the t-statistics and p-values. Therefore, Hypothesis H4 is positively supported. These findings are further discussed in the discussion section. Hence, the findings suggest that cross-cultural communication mediates teaching pedagogy and students' sustainable development.

5. Discussion

This study aimed to investigate the effect of teaching pedagogies on the sustainable development of students in Chinese universities. The findings show that implementing teaching pedagogies positively influences students' sustainable development among national and international students studying in Chinese universities. Moreover, teaching pedagogies have positively impacted students' sustainable development. Our findings concerning the influence of teaching pedagogies on students' sustainable development support previous research (Alshahrani, 2017; Valizadeh & Soltanpour, 2020). These results align with the earlier studies, which identified the importance of teaching pedagogies in developing crucial talent to master at the university level, especially for postgraduate students ready to enter the workforce immediately after completing their degree (Alshahrani, 2017; Yetti, 2024). These results reveal that teaching pedagogies are not the sole indicator of academic progress and success for universities, but they are also necessary for the long-term development of their institutions (Chen et al., 2018; Oakey, 2020). In addition, teaching pedagogies that are competent indicators for achieving students' sustainable growth are among the most critical components to ensure long-term growth (Padwad, 2020; Richards, 2017; Tan et al., 2020).

Furthermore, this research illustrates that cross-cultural communication positively influences students' sustainable development, supporting the findings of previous studies (Chen et al., 2020; Marshall, 2020). An increasing number of students worldwide choose to obtain their education from international platforms. The purpose of the students moving to another country is to study; hence, their success and sustainability depend on their ability to listen, read the materials, write their assignments, and perform in exams, adopting the teaching skills of the host country. Most importantly, China is emerging as a competitor in the international market and a hub for students, tourists, and businesses (Ji et al., 2016). Therefore, international students must communicate with the locals, especially when managing their lives abroad.

Students who manage cross-cultural communication might experience different educational systems that differ from their previous experiences in their countries. It takes significant energy to acclimate and adjust to a new teaching system for academic achievements. Consequently, key components must be examined to boost students' long-term development, such as teaching pedagogies utilized in teaching and learning, seeking information, and writing projects and assignments throughout the academic year (Tan et al., 2020).

Moreover, the findings illustrate that cross-cultural communication significantly influences students' sustainable development, which supports the findings of previous studies (Farnia & Raja Rozina, 2015; Natia Davitishvili, 2017; Tan et al., 2020; Whatley et al., 2020). Hence, the more accessible adaptation to cross-cultural education in China may be attributed to various aspects such as multicultural experience, strategies and policies for education, students' support from teachers, students' learning desire, and effective teaching process, stating that their various cultural and educational factors lead to students' sustainable development.

Finally, successful cross-cultural communication is a significant mediating factor related to sustainable development and teaching pedagogy to increase students' ability to meet the

requirements of future goals (Hassan, 2019). The finding of testing the mediation is contrary to previous studies, as this study is one of the few studies exploring cross-cultural communication as a form of mediation amid teaching pedagogies and students' sustainable development (Maley & Peachey, 2017). This study aimed to examine the effect of teaching pedagogy on students' sustainable development in Chinese universities with cross-cultural communication as a mediator. Students' sustainable development in the context of this study is established through the outcomes of teaching techniques.

The outcomes were measured through teaching pedagogies in a cross-cultural context among students studying in Chinese universities while adapting to another culture. Hence, teaching pedagogies and cross-cultural communication positively affect students' sustainable development. One of the consequences is that, due to globalization, the tendency of internationalization in education has become increasingly rapid. As a result, managing cultural diversity is extremely difficult. The current study showed that national and international students experience cross-cultural issues due to language. In this study, apart from Chinese respondents, there were 26 respondents from Pakistan, 20 from Indonesia, four from India, and one from Singapore. Singapore and Indonesia are two countries that share the closest culture, whereas Pakistan has excellent trade relations with China and is very close to China; however, there are still differences (Yousaf, 2017).

The findings support the need to establish teaching pedagogies. Another implication is that cross-cultural communication problems are cross-cultural challenges; students can overcome these with time and practice. Additionally, the implications of the constructs of the study involve students' sustainable development, cross-cultural communication, and teaching pedagogies. These are the common factors involved in students' development. Therefore, improving the teachers' strategies, tools, and techniques helps them adapt and improve their communication skills, especially cross-cultural communication, and vice versa. This subsequently allows them to achieve the goals of sustainability.

6. Conclusion

In conclusion, higher education institutions must develop a clear framework incorporating these elements to increase sustainability among national and international students in diverse cross-cultural communication environments. Increased cross-cultural interactions correspond to amplified cultural understanding and improved adaptability and willingness to learn pedagogical skills for sustainable development.

5.1. Theoretical Contributions

Based on the perspective of the theory of teaching pedagogy, cognitive learning strategies are the prerequisite for initiating and maintaining learning efforts. As a magnitude, institutions consequently adopt more cognitive and metacognitive strategies for students' sustainable development to achieve the goal of learning and teaching for students' sustainability. These findings allow us to enlighten the relationships and evaluate them concerning the students' sustainability development results, which are linked to the sustainability of national and international students. Finally, the conciliation mechanism of cross-cultural communication has identified that intercultural communication competence is critical in sustaining academics (Xia et al., 2024).

5.2. Managerial Implications

In terms of teaching pedagogies, the findings of this study are in line with the findings of previous studies (Ahn, 2020; Farnia & Raja Rozina, 2015; McKay, 2004; Natia Davitishvili, 2017; Padwad, 2020; Richards, 2017; Tan et al., 2020; Whatley et al., 2020). Issues that the students have to face obstruct dynamic learning inside the university and, consequently, their future growth. Responses from the respondents showed that students face severe challenges at the national and international levels

when dealing in a cross-cultural context. Therefore, cultural and language issues in teaching pedagogies could be overcome with time. To reduce language barriers that obstruct students' long-term development goals, institutions must pay close attention to their teaching pedagogies because weak abilities do not contribute to growing their knowledge, which they will need in their future careers (Fajri & Okwar, 2020; Farooq et al., 2018; Whatley et al., 2020). More cross-cultural interactions could be productive in enhancing mutual understanding and respect for cultural and educational sensitivities. More academic and cultural exchanges could improve the barriers and stereotypical attitudes toward other cultures (Yousaf et al., 2022). The curriculum development could be more inclusive to promote intercultural understanding. Hence, the findings help policymakers and practitioners better navigate cross-cultural barriers and sensitivities. Hitherto, the importance of intercultural competence development in education is critical. As such, this study suggests that educational institutions adopt intercultural competence strategies. For instance, Dimitrov and Haque (2016) also indicated that institutes should pay attention to the capacity building of the teachers to interact with culturally diverse students in sustaining their learning experience. This study recommends that educational institutions receiving culturally diverse students may conduct special cultural competence training workshops for their faculty and administrative units to mitigate the effects of cultural differences.

Limitations: This study has several strengths. However, it has a few limitations as well. Firstly, the study used a cross-sectional research design, which only offers a snapshot of the phenomenon under investigation; with a cross-sectional design, we can establish a cause-and-effect relationship between variables. Secondly, future studies could utilize a longitudinal research design to track the changes over time or an experimental research design to establish a causal relationship. Thirdly, researchers could select more diverse samples to generalize the results to a broader population beyond the two countries. Moreover, individual viewpoints may induce bias in the outcomes, much as they did in Smart-PLS small sample size investigations. Furthermore, future studies should thoroughly analyze the role of cross-cultural communication and teaching pedagogy while considering the current study's findings.

Declarations

Author Contributions. SK, NA, SHR, MY, NM, TM: Literature review, conceptualization. SHR, MY: methodology, data analysis. SK, NA, SHR, MY, NM, TM: review-editing and writing, original manuscript preparation. All authors have read and approved the published version of the article.

Conflicts of Interest. The authors declare no conflict of interest.

Funding. N/A

Ethical Approval. N/A

Data Availability Statement. The data supporting the results reported in this study are available from the corresponding author on request.

Acknowledgements. The authors appreciate the two anonymous reviewers and the editor for their insight and constructive feedback, which improved the paper.

References

- Aboelmaged, M. G. (2018). Knowledge sharing through enterprise social network (ESN) systems : motivational drivers and their impact on employees' productivity. *Journal of Knowledge Management*, 22(2), 362–383. <https://doi.org/10.1108/JKM-05-2017-0188>
- Aguinis, H., Ramani, R., & Alabduljader, N. (2019). Recommendations for Producers Evaluators and Users of Methodological Literature Reviews. *Academy of Management Proceedings*, 2019(1), 13596. <https://doi.org/10.5465/AMBPP.2019.13596>
- Ahn, S. (2020). Non-native English-speaking teachers in Korean English classrooms: reflections

through critical performative pedagogy. *Reflective Practice*, 21(1), 68–80. <https://doi.org/10.1080/14623943.2019.1708713>

Alshahrani, A. (2017). Methodological Issues in Studying Cultural Dimensions with Special Reference to Educational Context. *Arab World English Journal*, 8(1), 25–41. <https://doi.org/10.24093/awej/vol8no1.3>

Asif, T., Guangming, O., Haider, M. A., Colomer, J., Kayani, S., & ul Amin, N. (2020). Moral education for sustainable development: Comparison of university teachers' perceptions in China and Pakistan. *Sustainability (Switzerland)*, 12(7). <https://doi.org/10.3390/su12073014>

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal Of Personality and Social Psychology*, 51 (6), 1173–1182. [10.1037//0022-3514.51.6.1173](https://doi.org/10.1037//0022-3514.51.6.1173)

Bowden, R. (1970). Teaching English for Sustainability. *Journal of NELTA*, 15(1–2), 16–21. <https://doi.org/10.3126/nelta.v15i1-2.4605>

Chadha, M., & Relly, J. E. (2024). Supporting intercultural experiences in online teaching during wartime and humanitarian crises: Slack as a learning tool. *Journalism & Mass Communication Educator*, 79(2), 224–245. <https://doi.org/10.1177/10776958241234365>

Chander, N., Siow, M. L., Ramachandran, S., Kunasekaran, P., & Rathakrishnan, T. (2020). Conceptualizing inclusive learning and development: A framework towards entrepreneurial competency practices for sustainability. *Sustainability (Switzerland)*, 12(17), 1–20. <https://doi.org/10.3390/SU12176905>

Chen, H., Han, J., & Wright, D. (2020). An investigation of lecturers' teaching through English medium of instruction-a case of higher education in China. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/SU12104046>

Cheng, E. C. K., Wu, S. W., & Hu, J. (2017). Knowledge management implementation in the school context: case studies on knowledge leadership, storytelling, and taxonomy. *Educational Research for Policy and Practice*, 16(2), 177–188. <https://doi.org/10.1007/s10671-016-9200-0>

Corney, G., & Reid, A. (2007). Student teachers' learning about subject matter and pedagogy in education for sustainable development. *Environmental Education Research*, 13(1), 33–54. <https://doi.org/10.1080/13504620601122632>

Doan, N. B. (2017). Sàng khôn as a theorizing tool in mobility education. *Education Sciences*, 7(1). <https://doi.org/10.3390/educsci7010026>

Dogancay-Aktuna, S., & Hardman, J. (2018). Teaching of English as an international language in various contexts: Nothing is as practical as good theory. *RELC Journal*, 49(1), 74–87.

Dimitrov, N., & Haque, A. (2016). Intercultural teaching competence: A multi-disciplinary model for instructor reflection. *Intercultural education*, 27(5), 437–456.

Fajri, M. S. A., & Okwar, V. (2020). Exploring a Diachronic Change in the Use of English Relative Clauses: A Corpus-Based Study and Its Implication for Pedagogy. *SAGE Open*, 10(4). <https://doi.org/10.1177/2158244020975027>

Farnia, M., & Rozina, R. (2009). Contrastive pragmatic study and teaching culture in English language classroom—A case study. In *7th international conference by the school of language and linguistics studies* (pp. 242–257).

- Farooq, M. U., Soomro, A. F., Soomro, A. F., Umer, M., & Umer, M. (2018). English Language Teaching and Cultural Implications in Saudi Arabia. *International Journal of English Linguistics*, 8(3), 177. 10.5539/ijel.v8n3p177
- Georgeson, L., & Maslin, M. (2019). Estimating the scale of the US green economy within the global context. *Palgrave Communications*, 5(1), 1–12. <https://doi.org/10.1057/s41599-019-0329-3>
- Georgeson, L., Maslin, M., & Poessinouw, M. (2017). The global green economy: a review of concepts, definitions, measurement methodologies and their interactions. *Geo: Geography and Environment*, 4(1). <https://doi.org/10.1002/geo2.36>
- Guo, S., Shin, H., & Shen, Q. (2020). The commodification of Chinese in Thailand's linguistic market: A case study of how language education promotes social sustainability. *Sustainability (Switzerland)*, 12(18). <https://doi.org/10.3390/SU12187344>
- Guo, Y., Sit, H., & Bao, M. (2020). Sustainable careers of teachers of languages other than English (LOTEs) for sustainable multilingualism in Chinese universities. *Sustainability (Switzerland)*, 12(16). <https://doi.org/10.3390/su12166396>
- Hair, J. F., Tomas, G., Hult, M., Ringle, C., Sarstedt, M. (2014). *Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM : Indeed, a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–151. 10.2753/MTP1069-6679190202
- Hanif, M. (2011). Differences and Similarities in Islamic and Conventional Banking. *International Journal of Business and Social Science*, 2(2), 166–175. Available at <https://ssrn.com/abstract=1712184>
- Hassan, F. (2019). The Arab Spring in Egypt : The Role of Social Media of Social Sciences & Educational Studies. *International Journal of Social Sciences & Educational Studies*, (November 2016).
- Hendrikse, R., Bassens, D., & Meeteren, M. Van. (2018). The Appleization of finance: Charting incumbent finance' s embrace of FinTech. *Finance and Society*, (February).
- Horne, C., & Kennedy, E. H. (2022). Understanding the rebound: Normative evaluations of energy use in the United States. *Environmental Sociology*, 8(1), 64–72. <https://doi.org/10.1080/23251042.2021.1958545>
- Howson, C. K., & Kinchin, I. M. (2022). Education Sciences Belonging in Science : Democratic Pedagogies for Cross-Cultural PhD Supervision.
- Inanlou, Z., & Ahn, J. Y. (2017). The effect of organizational culture on employee commitment: A mediating role of human resource development in Korean firms. *Journal of Applied Business Research*, 33(1), 87–94.
- Ji, D., Hu, Z., & Muhammad, Y. (2016). Neighboring competitor? Indian image in Chinese media. *Global Media and China*, 1(3), 234–250. <https://doi.org/10.1177/2059436416668186>
- Jonker, J., & Pennink, B. (2010). *The Essence of Research Methodology*. Springer Heidelberg Dordrecht. https://doi.org/10.1007/978-3-540-71659-4_2
- Hair, J. F., Tomas, G., Hult, M., Ringle, C., Sarstedt, M. (2014). *Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage.
- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 1–7. <https://doi.org/10.1504/IJMDA.2017.087624>
- Kaijun, Y., & Ichwatus Sholihah, P. A. (2015). A comparative study of Indonesia and Chinese educative

systems concerning the dominant incentives to entrepreneurial spirit (desire for a new venturing) of business school students. *Journal of Innovation and Entrepreneurship*, 4(1), 1–16. <https://doi.org/10.1186/s13731-014-0014-0>

- King, D. (2014). Emerging organization issues in higher education. *Journal of Higher Education Management*, 29(1), 1–170. Retrieved from http://www.aaua.org/journals/pdfs/JHEM_Vol_28-1_Web_Edition_2013.pdf%5Cnpapers3://publication/uuid/B348B1A2-02F4-42F2-8B88-84C83E954625
- Kok, S. K., & McDonald, C. (2017). Underpinning excellence in higher education—an investigation into the leadership, governance and management behaviours of high-performing academic departments. *Studies in Higher Education*, 42(2), 210–231. <https://doi.org/10.1080/03075079.2015.1036849>
- Koester, J., & Lustig, M. W. (2015). Intercultural communication competence: Theory, measurement, and application. *International Journal of Intercultural Relations*, 48, 20–21. <https://doi.org/10.1016/j.ijintrel.2015.03.006>
- Krejcie, R. V., & Morgan, D. A. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, (30), 607–610. [10.21315/mjms2021.28.2.2](https://doi.org/10.21315/mjms2021.28.2.2)
- Li, J., & Lin, B. (2016). Green economy performance and green productivity growth in China's cities: Measures and policy implication. *Sustainability (Switzerland)*, 8(9). <https://doi.org/10.3390/su8090947>
- Ma, S. (2018). *Teaching English as a Foreign Language (EFL) Learners in China through a Multiliteracies Theoretical Framework using Picture Books*. University of Windsor. Windsor, Ontario, Canada.
- Maley, A., & Peachey, N. (2017). Integrating global issues in the creative English language classroom: With reference to the United Nations Sustainable Development Goals.
- Mahmood, N., & Yousaf, M. (2024). *Making Sense of Statistical Analysis: A Researcher's Handbook for Data Analysis Using SPSS*. National Book Foundation.
- Marshall, S. (2020). Understanding plurilingualism and developing pedagogy: teaching in linguistically diverse classes across the disciplines at a Canadian university. *Language, Culture and Curriculum*, 33(2), 142–156. <https://doi.org/10.1080/07908318.2019.1676768>
- Lozano, Martín-Garin, A., Millán-García, J. A., Leon, I., Oregi, X., Estevez, J., & Marieta, C. (2021). Pedagogical approaches for sustainable development in building in higher education. *Sustainability*, 13(18), 10203.
- Lozano, R., Merrill, M. Y., Sammalisto, K., Ceulemans, K., & Lozano, F. J. (2017). Connecting competences and pedagogical approaches for sustainable development in higher education: A literature review and framework proposal. *Sustainability*, 9(10), 1889. <https://doi.org/10.3390/su9101889>
- Martin, G. (2017). Scaling critical pedagogy in higher education. *Critical Studies in Education*, 58(1), 1–18. <https://doi.org/10.1080/17508487.2015.1115417>
- McKay, S. L. (2004). Teaching English as an international language: The role of culture in Asian contexts. *Journal of Asia TEFL*, 1(1), 1–22. <https://doi.org/10.1002/tesj.70039>
- Memon, M. A., Ting, H., Ramayah, T., Chuah, F., & Cheah, J. (2017). A Review of the Methodological Misconceptions and Guidelines Related to the Application of Structural Equation Modeling: A

- Malaysian Scenario. *Journal of Applied Structural Equation Modeling*, 1(June). [https://doi.org/10.47263/jasem.1\(1\)01](https://doi.org/10.47263/jasem.1(1)01)
- Miller, H., Worlds, M., & Dowie-Chin, T. (2020). From Pages to Pedagogy: Studying Fictional Social Justice English Teachers in Young Adult Literature. *Research on Diversity in Youth Literature*, 2(2). Retrieved from <https://sophia.stkate.edu/rdyl/vol2/iss2/4>
- Natia Davitishvili. (2017). Cross-Cultural Awareness and Teaching English as a Second Language in the Context of Globalization. *Sino-US English Teaching*, 14(9), 549–558. 0.17265/1539-8072/2017.09.003
- Ngubane, N., Ntombela, B. X., & Govender, S. (2020). Translanguaging pedagogy in selected English First Additional Language writing classrooms. *Southern African Linguistics and Applied Language Studies*, 38(2), 142–151. <https://doi.org/10.2989/16073614.2020.1771190>
- Oakey, D. (2020). Phrases in EAP academic writing pedagogy: Illuminating Halliday's influence on research and practice. *Journal of English for Academic Purposes*, 44, 100829. <https://doi.org/10.1016/j.jeap.2019.100829>
- Ogbogu, P. U., Noroski, L. M., & Arcoleo, K. (2023). Methods for Cross-Cultural Communication in Clinic Encounters. *The Journal of Allergy and Clinical Immunology in Practice*, 10(4), 893–900. <https://doi.org/10.1016/j.jaip.2022.01.010>
- Omar, A. (2024). Enhancing intercultural communicative competence in efl education for sustainable development and globalization challenges. *World Journal of English Language*, 14(1), 247–247. <https://doi.org/10.5430/wjel.v14n1p247>
- Omar, A., & Gomaa, Y. A. (2020). The machine translation of literature: Implications for translation pedagogy. *International Journal of Emerging Technologies in Learning*, 15(11), 228–235. <https://doi.org/10.3991/IJET.V15I11.13275>
- Padwad, A. (2020). Innovations in English Language Teaching in India: Trends in Language Pedagogy and Technology. *ELT Journal*, 74(4), 515–516. <https://doi.org/10.1093/elt/ccaa050>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Publishers, C. (2018). Emotional Intelligence and Intercultural Competence : Theoretical Questions and Pedagogical Possibilities. *Intercultural Communication Education*, 1(2), 54–63. <https://dx.doi.org/10.29140/ice.v1n2.60>
- Ramdhani, A., Ramdhani, M. A., & Ainsiyifa, H. (2017). Model Conceptual Framework of Corporate Culture Influenced on Employees Commitment to Organization. *International Business Management*, 11(3), 826–830.
- Richards, J. C. (2017). Teaching English through English: Proficiency, Pedagogy and Performance. *RELC Journal*, 48(1), 7–30. <https://doi.org/10.1177/0033688217690059>
- Romylos, S. (2020). Professional Identities of English Literature Teachers in a South African Context. *Changing English: Studies in Culture and Education*, 00(00), 1–17. <https://doi.org/10.1080/1358684X.2020.1760082>
- Sanchez, E. C. (2019). *The effect of servant leadership on healthcare employee psychological safety and employee behaviours that lead to job thriving and performance*. Retrieved from <http://essay.utwente.nl/79656/>
- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with

PLS and CBSEM : Where the bias lies. *Journal of Business Research*, 69(10), 3998–4010. Available at SSRN: <https://ssrn.com/abstract=2984816>

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson.

Schwartz, S. H. (2007). A theory of cultural value orientations: Explication and applications. *International Studies in Sociology and Social Anthropology*, 104(921), 33–78.

Sengupta, E., Blessinger, P., & Yamin, T. S. (2020). Introduction to teaching and learning strategies for sustainable development. In E. Sengupta, P. Blessinger & T. Subhi Yami (Eds.), *Teaching and learning strategies for sustainable development* (pp. 3-14). Emerald Publishing Limited.

Shotte, G. (2013). Rethinking pedagogy: English language teaching approaches. *Education in One World: Perspectives from Different Nations*, 151–157. Retrieved from <http://bces-conference.org/BCES Conference Books.html>

Tan, K. H., Farashaiyan, A., Sahragard, R., & Faryabi, F. (2020). Implications of English as an international language for language pedagogy. *International Journal of Higher Education*, 19(1), 22–31. <https://doi.org/10.5430/ijhe.v9n1p22>

Tham, J., Duin, A. H., Veeramoothoo, S. (Chakrika), & Fuglsby, B. J. (2021). Connectivism for writing pedagogy: Strategic networked approaches to promote international collaborations and intercultural learning. *Computers and Composition*, 60, 102643. <https://doi.org/10.1016/j.compcom.2021.102643>

Tianya. (2015). *Organizational Culture & Employee Behavior: Case study*. Lahden Ammattikorkeakoulu Lahti University of Applied Science.

Tseng, W. T., Cheng, H. F., & Gao, X. (2020). Validating a motivational self-guide scale for language learners. *Sustainability (Switzerland)*, 12(16). <https://doi.org/10.3390/su12166468>

Tsukamoto, M. (2014). English Language Education for Sustainable Development : Fostering Global Citizenship. *English Language Teaching*, 18, 153–161. 10.5861/ijrse.2025.25816

UNIDO Report. (2016). *Industrial Development Report 2016. The Role of Technology and Innovation in Inclusive and Sustainable Industrial Development*. Vienna. UNIDO.

Valizadeh, M., & Soltanpour, F. (2020). The flipped pedagogy: Effects on the grammatical competence and writing skill of basic users of english. *International Journal of Instruction*, 13(3), 761–776. <https://doi.org/10.29333/iji.2020.13351a>

Vincenzo, A., Vinzi, E., Russolillo, G., Saporta, G., & Trinchera, L. (2014). *The Multiple Facets of Partial Least Squares and Related*. Springer Proceedings in Mathematics and Statistics.

Voronkova, O., Nikishkin, V., Frolova, I., Matveeva, E., Murzagalina, G., & Kalykova, E. (2019). Importance of the process of teaching the basics of social entrepreneurship for the sustainable development of society. *Entrepreneurship and Sustainability Issues*, 7(2), 1048–1058. [https://doi.org/10.9770/jesi.2019.7.2\(18\)](https://doi.org/10.9770/jesi.2019.7.2(18))

Wang, W., & Zhan, J. (2020). The Relationship between English Language Learner Characteristics and Online Self-regulation: A Structural Equation Modeling Approach. *Sustainability*, 4(4), 1–25. <https://doi.org/10.3390/su12073009>

Whatley, R., Banda, R. M., & Bryan, N. (2020). Challenging Traditional Conceptions of English Curricula & Pedagogy: A Review of Literature on Teaching Critical Literacy through Political Music. *Changing English: Studies in Culture and Education*, 27(4), 431–445. <https://doi.org/10.1080/1358684X.2020.1747395>

Xia, Y., Shin, S. Y., & Kim, J. C. (2024). Cross-cultural intelligent language learning system (CILS):

- Leveraging AI to facilitate language learning strategies in cross-cultural communication. *Applied Sciences*, 14(13), 5651. <https://doi.org/10.3390/app14135651>
- Yassin, A. A., Razak, N. A., Qasem, Y. A. M., & Mohammed, M. A. S. (2020). Intercultural learning challenges affecting international students' sustainable learning in Malaysian higher education institutions. *Sustainability (Switzerland)*, 12(18), 1–19. <https://doi.org/10.3390/su12187490>
- Yousaf, M., Ahmad, M., Ji, D., Huang, D., & Raza, S. H. (2022). A cross-cultural comparison of ethnocentrism and the intercultural willingness to communicate between two collectivistic cultures. *Scientific Reports*. 12, 17087. [https:// doi.org/10.1038/s41598-022-21179-3.](https://doi.org/10.1038/s41598-022-21179-3)
- Yousaf, M. (2017). A cross-cultural comparison of ethnocentrism among Chinese and Pakistani university students. In Liu, Chang & Zhao, Ruhan (Eds), *Fusion. Reconstruction. Innovation- the Reality and Future of Journalism Research [融合·重构·创新 新闻学研究的现实与未来]* (pp.197-205). Communication University of China Press. Available at [融合·重构·创新：新闻学研究的现实与未来-昶-刘-ebook/dp/B07CCZKYLB](#).
- Yeti, E. (2024). Pedagogical innovation and curricular adaptation in enhancing digital literacy: A local wisdom approach for sustainable development in Indonesia context. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100233. <https://doi.org/10.1016/j.joitmc.2024.100233>
- Zamora-Polo, F., Sánchez-Martín, J., Corrales-Serrano, M., & Espejo-Antúnez, L. (2019). What do Do university students know about sustainable development goals? A realistic approach to the reception of this UN program amongst the youth population. *Sustainability (Switzerland)*, 11(13), 1–19. <https://doi.org/10.3390/su11133533>
- Zhang, L., Tsung, L., & Zhuoma. (2020). Exploring sustainable multilingual language policy in minority higher education in China: A case study of the Tibetan language. *Sustainability (Switzerland)*, 12(18). <https://doi.org/10.3390/su12187267>

About the Contributor(s)

Sarwar Khawaja, SK Oxford Business College. A Visionary British Entrepreneur transforming AI and education.

Email: Sarwar.khawaja@theskhub.com

Naima Andleeb, Business School, Imperial College of Business Studies, Pakistan,

Email: naima.andleeb@outlook.com

ORCID: <https://orcid.org/0000-0003-3369-2149>

Syed Hassan Raza, has a Ph.D. in Communication from the School of Multimedia Technology and Communication, Universiti Utara Malaysia. He is an Associate Professor in the School of Media and Communication at Taylor's University, Malaysia. He researches Advertising, Marketing communication, Health Communication, and Environmental communication. He has published in many reputed Web of Science and Scopus-indexed journals.

Email: sherazibzu@gmail.com

ORCID: <https://orcid.org/0000-0002-1318-7818>

Muhammad Yousaf, (Ph.D.) is an assistant professor at the Centre for Media & Communication Studies, University of Gujrat, Pakistan. He earned his doctorate in Communication Studies at the Communication University of China in 2018. He is the recipient of three Gold Medals in M.Sc. Communication from the University of the Punjab. He is the author/editor of four books. His research interests include media and public opinion, environmental, and intercultural communication. He has published in Scopus and SSCI journals.

Email: m.yousaf@uog.edu.pk

ORCID: <https://orcid.org/0000-0003-3203-2966>

Prof. Dr. Nasir Mahmood, (PhD) has more than 25 years of experience working in the education sector at different levels. He has taught research methods, educational psychology, and quantitative data analysis to undergraduate, postgraduate, and PhD students in various public and private sector universities.

Email: nasir.mahmood@aiou.edu.pk

Tahir Mahmood, Ph.D., is a Research Fellow at SK Research - Oxford Business College.

Email: tahir.mahmood1@obc.ac.uk

Emenyeonu, C. Ogadimma is a Ph.D. working at the College of Communication, University of Sharjah, Sharjah 27272, UAE.

Email: eogadimma@sharjah.ac.ae

Publisher's Note: *The opinions, statements, and data presented in all publications are solely those of the individual author(s) and contributors and do not reflect the views of Universitepark, EDUPIJ, and/or the editor(s). Universitepark, the Journal, and/or the editor(s) accept no responsibility for any harm or damage to persons or property arising from the use of ideas, methods, instructions, or products mentioned in the content.*

Appendix I.

Section A:

Students Sustainable Development

- 1- My university teachings are helping me to stay on international platforms.
- 2- The research facilities of my university helped me to grow my research skills.
- 3- Teaching pedagogies at my university is helping me learn sustainable skills in the future.
- 4- I am confident that I will overcome any challenge over time.

Section B:

Teaching Pedagogies

- 1- I believe that my university's best practices are used to teach students.
- 2- I trust all of the strategies that are implemented to teach students.
- 3- I believe that several ways can be adopted to teach a concept.

- 4- My university supports the publishing of scholarship-related teaching.
- 5- I happily followed the research methods used in teaching.
- 6- In my university, teachers actively work to bring new teaching strategies.
- 7- I love to follow new teaching strategies implanted by my institute.
- 8- I always get excited when I hear about teaching pedagogies at my university.
- 9- I am excited to learn new ideas about teaching.
- 10- I always whizz at the ability of teaching.
- 11- I feel amazed at what teaching can do for students.
- 12- I believe the teaching strategies are easy in my university.
- 13- I think that cross-cultural teachings should be part of the course.
- 14- I think new teaching pedagogies are the key to sustainable development.
- 15- I think teaching methods help with fast learning.

Section B:

Cross-Cultural Communication

- 1- I am quick to develop relationships with different cultures.
- 2- I take the opportunity to have conversations with people from different cultures.
- 3- I wish to learn as many cultures as possible.
- 4- I like to those cultures who respect time.
- 5- I am keen to discuss ideas with my different counterparts from different cultures.
- 6- I always learn a lot during my interactions with culturally different counterparts.
- 7- I always find it pleasant to interact with different cultures.
- 8- I always find it exciting when my teachings help me to deal confidently with international platforms.