Original article

Quality of transnational higher education: from the perspective of students

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Abstract:
Following China's reform and opening-up, transnational higher education (TNHE) emerged as a pivotal model to address the increasing demand for higher education. In recent years, the Chinese government has also initiated quality evaluations of Sino-foreign cooperative education programs. As key stakeholders in cross-border higher education, students' evaluations of institutional and programme quality deserve close attention from both the academic and professional communities. Using a qualitative research design grounded in 3P model and the prospective approach, semi-structured interviews were conducted with 31 students from Xi'an Jiaotong Liverpool University (XJTLU) and the University of Nottingham Ningbo China (UNNC). The findings reveal both successes and challenges in educational quality, which are shaped by infrastructure, academic support, and teaching consistency. While students expressed satisfaction with physical facilities and resources, concerns were raised about the impact of expanding enrolment and faculty turnover on teaching quality. The study concludes that quality assurance in TNHE should be a dynamic approach that prioritizes student perspectives and addresses discrepancies between expectations and educational experiences.

1. Introduction

In the late 1970s, China initiated a substantial social and economic transition through the implementation of economic reforms and opening up. Rapid expansion in several sectors, such as the economy, society, culture, and technology, throughout this period resulted in a significant rise in the demand for higher education (Mok & Han, 2017; Zhang et al., 2024). The Chinese government realised that relying solely on government resources was insufficient to meet the growing demand for higher education. At the same time, the forces of globalisation and increasing worldwide rivalry served as incentives for individuals to seek foreign higher education. Given the circumstances, the government decentralised and liberalised the private sector, promoting its participation in education to broaden and enhance educational opportunities (Mok & Liu, 2007).

While the government successfully met the demand for higher education, the public's need for more diverse options continued to grow. In response to this, the Chinese government began partnering with foreign higher education institutions, aiming to introduce high-quality resources from overseas. The new form of transnational higher education (TNHE) emerged as a significant strategy to achieve comprehensive higher education reform. There are two forms of TNHE in China. The first category consists of Sino-foreign cooperative education institutions, which can either have independent legal status or non-independent legal status (State Council, 2003). The second category includes Sino-foreign Cooperative Programmes, typically offered through regular or Sino-foreign universities. According to the report of the Chinese-Foreign Cooperation in Running School, currently China has 1,979 transnational institutions and projects. Regarding school size, incomplete statistics indicate that approximately 550,000 students are enrolled in Sino-foreign cooperatively-run schools across various levels and types, with around 450,000 of these students in higher education, representing 1.4% of the total full-time college student population. Additionally, the number

of graduates from Sino-foreign cooperative higher education institutions has surpassed 1.5 million (British Council, 2015). In China, the 2+2 articulation programme is a widely favored model of transnational education (TNE), allowing Chinese students to complete two years of study domestically followed by two years abroad to earn their degree. However, the landscape shifted in 2018 when the Ministry of Education (MoE) conducted an evaluation of joint programmes and institutions. This evaluation resulted in the closure of 234 programmes and institutions due to their inadequate quality educational resources and non-competitive subject offerings. Furthermore, these entities failed to meet the government's standards for contributing to both regional and national growth (MoE, 2018). The shutdown underscores the government's focus on maintaining high standards through ongoing oversight of TNE programmes (ICEF Monitor, 2018).

Furthermore, the growth of TNHE gained substantial attention from academia. Prior research has mostly focused on TNE at the institutional level and have shown that creating and maintaining these partnerships could be difficult (Healey, 2015; Wilkins & Juusola, 2018). In contrast, relatively few studies have examined the experiences of students participating in TNE and how these relate to the quality concerns of transnational higher education (TNHE) (O'Mahoney, 2014). Several studies have expressed concerns about the quality of TNHE, suggesting that the effectiveness of teaching and learning in such programmes is intricately linked to student satisfaction, learning outcomes, cross-cultural experiences, and employability prospects (Dai, Matthews & Reyes, 2019; Mok & Han, 2017; Zhang et al., 2024). Nevertheless, the main emphasis of these studies has been on improving the teaching process once TNE partnerships are established, rather than examining and reinforcing the processes engaged in their creation. There has been a limited academic exploration into the quality issues faced by Sino-foreign cooperative universities, particularly when considering the perspectives of students involved in articulation programmes (Dai & Garcia, 2019). Investigating these students' educational experiences is vital for assessing the effectiveness of 2+2 programmes, as the quality of such programmes plays a key role in driving the evolution and success of transnational higher education (TNHE).

To fill the aforementioned gap, this study investigates the perspectives of Chinese 2+2 students whose home universities are involved in a collaboration with UK institutions (referred to as 'China-UK 2+2 students' henceforth). Considering the importance of students' perspectives on the quality of TNHE, this paper aims to investigate the two questions of: What are the perspectives of 2+2 students across their studying journey? What are the implications of 2+2 students' educational experiences for improving quality assurance practices?

2. Literature review

2.1 Quality assurance practices in China

The widespread growth of higher education in China has brought up significant concerns regarding the efficiency of its quality assessment systems. Over the past few decades, the Chinese higher education market has grown significantly in response to the demand for skilled professionals in the market economy. This growth prompted the Chinese government to introduce quality control measures to ensure high standards of education across various types of institutions (Xu, 2011). The Ministry of Education is responsible for overseeing quality assurance, formulating policies, and designating authorised bodies to implement these measures (QAA, 2017).

China's quality assurance system emphasises external evaluations, which are seen as critical for ensuring educational standards. While internal evaluations play a role, they are often insufficient without the external pressure of third-party reviews (Hou et al., 2020). The government introduced the "Provisional Regulations on the Establishment of Ordinary Higher Education Institutions" in the 1990s, laying the groundwork for China's higher education accreditation system. Subsequent regulations, such as the "Provisional Regulations on Educational Supervision," have mandated regular evaluations of higher education institutions to ensure their adherence to quality standards.

The Higher Education Evaluation Centre (HEEC), established in 2006, has spearheaded research projects aimed at improving the in-process assessment of higher education institutions, incorporating feedback from evaluation experts, campus staff, and university leaders (Mohrman et al., 2011). Additionally, the China Academic Degrees and Graduate Education Development Centre (CDGDC) evaluates postgraduate degree-granting institutions and assesses master's and doctoral programmes (Liu, 2016). In quality assurance, student satisfaction is increasingly recognised as a key factor in evaluating educational services. According to Sapri et al. (2009), assessing student satisfaction helps identify gaps and areas for improvement, enhancing both the quality of education and the student experience. Barnett (2011) highlights that student satisfaction is a vital measure of the overall effectiveness and quality of higher education institutions.

2.2 Student perspectives on quality of TNHE

The construct of 'higher quality experience' is subjective and determined by the students themselves. More precisely, the quality of the experience is directly linked to the achievement of students' desired learning outcomes. The more easily their intended learning outcomes can be reached, the greater the quality of the experience is reported (Finnie & Usher, 2005). For decades, there have been ongoing debates on how to incorporate students' viewpoints into instruction and how to acknowledge their contribution to enhancing quality (Nunan, 1988; Johnson, 2001). The concept and expression of student-centered education are developed and implemented through specific instructional methodologies and curriculum frameworks.

Currently, as Nan (2017) determined, the perspectives of students are influencing professional curriculum design, the availability of teaching resources, effective teaching techniques, and classroom interactions. Bhandari, Belyavina & Gutierrez (2011) observed that students frequently correlate the quality of their education with factors such as the in-

stitution's prestige, the proficiency of the teaching staff, and the range of resources available. In addition, many students emphasise the significance of cross-cultural experiences and interaction opportunities, viewing them as integral to educational excellence in TNHE (Heffernan & Pimpa, 2019). These aspects are pivotal in shaping students' perceptions of the overall quality of their learning journey, particularly in an international context. Similar results were observed by Wilkins et al. (2012), who found that students studying in the United Arab Emirates expressed overall satisfaction with various aspects of their educational experience. This included satisfaction with the quality of the educational programme, the effectiveness of instructors, the learning outcomes achieved, assessment and evaluation processes, the availability of learning resources, technological advancement, and the quality of campus facilities. According to surveys conducted on cooperation programmes, students reported satisfaction with the educational quality and expressed enjoyment from studying at the branch campus (Ahmad, 2015; Dai, Matthews & Reyes, 2019). They perceived that TNHE offered them prospects for personal development, intercultural understanding, and professional progression that are not available in conventional higher education. Surveys conducted by Zhong et al. (2012) and Zheng & Ouyang (2022) revealed that these students expressed satisfaction with the management of quality services, operational circumstances, and emotional involvement.

It should be noted that several students conveyed a feeling of disempowerment when confronted with the disparities between the two educational systems. According to Bhuian (2016), students in Qatar voiced discontent with the teaching, administrative, and facility services at the branch campuses, stating that they did not meet their expectations in terms of service quality. Zhang (2021) emphasised the challenges faced by students in Sino-foreign cooperative education, such as deficiencies in quality control, job prospects, and cultural barriers. More precisely, the study revealed that insufficient teacher competence, substandard curriculum quality, and difficulties in integrating foreign education into the local Chinese workforce. Liu et al. (2021) highlight that several researchers have consistently stressed the need for additional support for Chinese students during their transition to foreign assessment methods and the adoption of new systems in Sino-foreign joint colleges. Ng & Nyland (2020) note that maintaining high educational standards can be challenging, particularly when integrating mandatory courses from two different universities for a dual degree programme, leading to potential quality concerns. In TNHE, students' perceptions of education quality are often subjective and variable, shaped by factors such as their expectations and learning adaptability (Zheng & Ouyang, 2022). Tsiligiris & Hill (2021) support this view, noting that students enrolled in the same programme at different study locations may experience varying levels of higher education quality.

2.3 Prospective approach model

This study was guided by the theoretical framework of 3P model, which highlights the interaction between students' expectations (presage), learning processes (process), and educational outcomes (product) (Biggs, 1996; Tsiligiris & Hill, 2021; Zeithaml et al., 1993). The prospective approach model, illustrated in Fig.1, demonstrates how student-related factors, categorised as "presage," influence their likelihood of adopting a deeper learning approach. This approach is essential for achieving optimal learning outcomes. Higher Education Institutions (HEIs), together with students, policymakers, and regulators, hold elevated expectations regarding both the quantitative and qualitative outcomes of this educational process, often termed "intended learning outcomes." Consequently, HEIs are urged to integrate student predictor variables into their strategic planning to better align with and meet these heightened expectations.

Based on the research of Biggs (1996) and Zeithaml et al. (1993), Tsiligiris & Hill (2021) introduced a holistic quality management model for higher education, emphasizing an integrated approach. Their model promotes the establishment of clear quality goals, the development of a comprehensive quality management plan, the assignment of specific roles and responsibilities to stakeholders, and the implementation of focused strategies to achieve these objectives. The core goal of the model is to continuously enhance the quality of the programme and foster a culture of ongoing improvement. It conceptualises quality management as achieving "quality fitness" for its intended purpose. This approach views the educational process as transformative, emphasising that education should remain at the center of all improvement efforts (Biggs, 2001). Previous research suggests that students' perspectives play a critical role in shaping quality management in TNHE. The proposed model encourages a bottom-up approach that recognises the distinct needs of students and places teaching and learning at its core, thereby meeting the quality enhancement expectations of both host and home universities. Gibbs (2010, 2012) underlined the need of taking into account specific student characteristics in order to improve educational standards and enrich student experiences.

3. Research design

3.1 Introduction of the case universities

This study employed a qualitative research design, utilizing the prospective approach model, to investigate students' perceptions of their learning experiences at two Sino-foreign cooperative universities: Xi'an Jiaotong Liverpool University (XJTLU) and the University of Nottingham Ningbo China (UNNC). These two institutions were chosen due to their extensive histories and established cooperative relationships with Chinese universities over the past two decades. Established in 2006 as a result of a collaboration between Xi'an University and Liverpool University, XJTLU is a Sino–UK cooperative university that operates with an independent legal status, as approved by the Ministry of Education (MoE). In the 2020 QS World University Rankings, it was positioned between
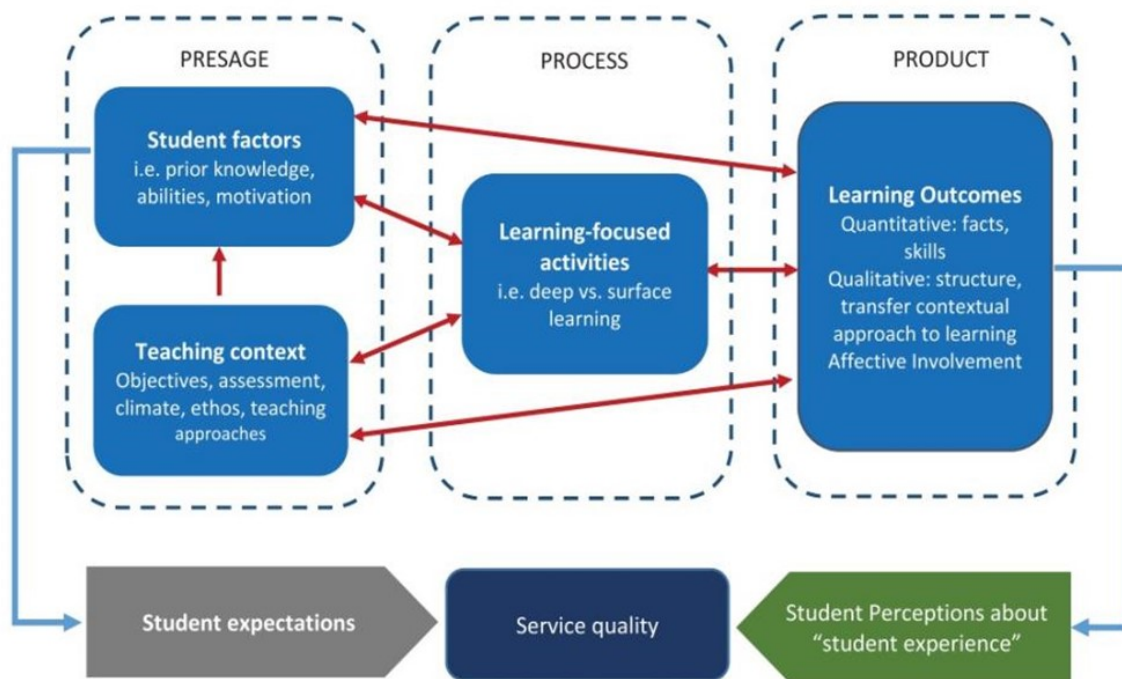
Fig. 1. 3P model: Connecting Education Quality with the Student Experience.(Source: Adapted from Biggs (1996) and Zeithaml et al. (1993).)

800 and 1000 and is now recognized as a leader in research-driven Sino-foreign cooperative education. Similarly, UNNC, founded in 2004 through a partnership between the Zhejiang Wanli Education Group and the University of Nottingham, became the first cooperative university in China to attain independent legal status. By 2019, UNNC was ranked 55th nationally and 2nd within Zhejiang Province according to SoftTech's university rankings. Both XJTLU and UNNC are recognized for their leadership in transnational higher education (TNHE), making them prime candidates for examining students' perceptions of education quality in this field.

3.2 Sampling method

The qualitative approach was chosen to explore how these students perceived quality assurance mechanisms within their home and host institutions. Purposive sampling was employed to select students from the 2+2 programmes at Xi'an Jiaotong Liverpool University (XJTLU) and the University of Nottingham Ningbo China (UNNC), focusing on those with direct experience in both the Chinese and UK educational systems. While the Chinese government has increasingly promoted the 4+0 model, in which students complete all four years of study in China at a transnational institution, the 2+2 model remains distinct. It provides students with the unique opportunity to experience both Chinese and UK educational environments. This dual exposure is essential for this study, as it allows for a more nuanced examination of how transnational higher education quality assurance mechanisms function across different cultural and institutional settings. The comparative nature of the 2+2 model makes it particularly relevant to understanding the challenges and successes students face in navigating two

educational systems. By analyzing their experiences, this study offers insights into the broader implications of improving quality assurance practices in transnational higher education.

3.3 Interview details and data collection

Through qualitative interviews, the study sought to reveal students' authentic narratives, offering insights into the realities of quality assurance in the transnational higher education (TNHE) context. A total of 31 students participated in the interviews. Of these, 8 were male and 23 were female. In terms of institutional representation, 10 students were from the University of Nottingham Ningbo China (UNNC), and 21 were from Xi'an Jiaotong Liverpool University (XJTLU). The participants, who were either in their third or fourth year of study, had experienced both stages of the 2+2 programmes: two years of study in China followed by two years in the UK. This provided a unique opportunity to observe changes in their perceptions of educational quality over time.

During the interviews, the students reflected on how their thoughts had changed as they transitioned from the Chinese educational system to the UK system, with particular emphasis on the adjustments they had to make to their academic approaches and expectations. These changes in perspective are central to understanding how students experience transnational education in both environments. The participants came from a variety of academic disciplines, ensuring diverse coverage of the educational resources and support offered by both universities. Consequently, the empirical findings are anticipated to offer a comprehensive understanding of students' learning experiences and their interaction with the resources provided by the universities.

Table 1. Description of Interviewees.

University	Participants	Gender	Major
Xi'an Jiaotong Liverpool University	XLS1	Female	Sociology of language
	XLS2	Female	International relationship
	XLS3	Female	Economic
	XLS4	Female	Computer
	XLS5	Male	Mathematics
	XLS6	Male	Applied Mathematics
	XLS7	Female	Financial mathematics
	XLS8	Female	Computer
	XLS9	Male	Accounting
	XLS10	Female	Information technology
	XLS11	Female	Economic and Finance
	XLS12	Female	Computer
	XLS13	Female	Business
	XLS14	Female	Economic and Finance
	XLS15	Female	City Governance
	XLS16	Male	Engineering
	XLS17	Female	Economic and Finance
	XLS18	Female	Accounting
	XLS19	Male	Computer
	XLS20	Female	Financial mathematics
	XLS21	Female	Accounting
University of Nottingham Ningbo, China	NNS1	Female	International relationship
	NNS2	Male	Architecture
	NNS3	Female	International relationship
	NNS4	Female	Media
	NNS5	Female	Business
	NNS6	Male	International relationship
	NNS7	Female	Humanities & social sciences
	NNS8	Female	International relationship
	NNS9	Female	Mathematics and applied mathematics
	NNS10	Male	Chemical engineer

4. Research findings

4.1 Aligning students' expectations and perceptions of surface learning

Surface learning, which involves assessing the physical learning environment provided by the university (Biggs, 1993), plays a significant role in shaping students' academic experiences. To ensure that both teaching and learning processes are effective, universities place a strong emphasis on the quality of their infrastructure, such as buildings, classrooms, and laboratories. Multiple studies have demonstrated that improved physical facilities in educational institutions can lead to higher levels of teacher satisfaction, increased student achievement, and a reduction in teacher turnover. Enhanced infrastructure, such as modernized classrooms, well-equipped laboratories, and state-of-the-art technology, contributes to a more conducive teaching and learning environment. These improved conditions not only make it easier for teachers to deliver quality instruction but also create an engaging atmosphere that supports student learning and performance, thereby fostering long-term retention of teaching staff (Teixeira, Amoroso & Gresham, 2017). The students in this study expressed that

their expectations of the infrastructure were not only met but often exceeded, as they perceived their universities' learning environments and resources to be highly supportive of their academic needs.

"For instance, students studying media really appreciate the learning environment on campus. My peers majoring in film and television have access to costly equipment, such as high-end cameras, which they wouldn't be able to purchase on their own. The university offers a range of resources, including a fully equipped recording studio, where they can work on their assignments." (XLS1) "The facilities in Liverpool are highly impressive. While the buildings themselves are quite old, the interiors feature modern and stylish designs, creating a unique and contemporary atmosphere. Certain areas within the teaching buildings have unique designs, creating an engaging atmosphere. While it can be a bit tricky to navigate and locate classrooms, the overall infrastructure exceeds our expectations. The library is well-equipped, and the teaching buildings have a polished feel. One system we use for presentations is particularly effective and could be introduced in China as well. I found it very useful." (XLS15)

Similarly, the majority of students indicated that the e-learning system greatly facilitated their educational experience, offering enhanced convenience and support. Notably, the diverse and flexible teaching methods provided through the system exceeded their initial expectations.

"XJTLU is different from other domestic universities in China. It is because it does not have the concept of a classes. Each student has their own timetable. Therefore, with such a central system, assigning tasks to everyone is very convenient (XLS11)."

Moreover, students might get academic support in the form of a variety of instructional strategies, types of supplementary instruction, or institutional resources designed to improve their learning outcomes, reach academic benchmarks, or succeed academically. The majority of respondents said that their schools provided students with various kinds of academic assistance, such as conferences, summer programmes, internships, and projects overseen by an outside expert, which highly align with their expectation.

Students expressed general satisfaction with the resources and support provided by their institutions. Many noted that off-campus mentorship, especially in the second and third years, played a crucial role in their academic development. Mentors, who were often professionals from various fields, offered valuable guidance on small projects and research activities, helping students engage in practical, hands-on learning experiences that enhanced their academic outcomes.

In terms of infrastructure, participants praised the physical facilities at both universities, particularly for the modern design and well-equipped learning environments. Students at Xi'an Jiaotong Liverpool University (XJTLU) and the University of Nottingham Ningbo China (UNNC) mentioned that resources such as libraries, classrooms, and study areas exceeded their initial expectations. While some described challenges in navigating the campus, overall, they found the infrastructure conducive to their academic success.

'In the second or third year, our university assigns off-campus mentors, who are seasoned professionals across various fields, to select a group of students for mentoring. These mentors often oversee small projects or research based on their interests. My mentor has been particularly supportive, guiding us through weekly courses and discussions. During the summer, we engaged in a formal research project involving paper writing, survey design, post-project questionnaires, and data analysis, with our mentor providing guidance throughout the entire process.'(XLS7)

In summary, students' perceptions were largely shaped by their academic expectations. Many participants chose Sino–UK cooperative universities because they believed these institutions offered better resources, such as a comfortable learning environment, well-equipped facilities, and strong academic support. For the most part, participants felt that their experiences aligned with or even exceeded their initial expectations.

4.2 Aligning students' expectations and perceptions of deep learning

Biggs' (1993) theory of deep learning highlights the interaction between student attributes and the educational environment, particularly in fostering deep engagement with the curriculum. Many students reported that the 2+2 programmes presented them with appropriate academic challenges. While the early stages of their studies, particularly in the Chinese system, were described as manageable, students noted that the coursework became progressively more demanding as they advanced, particularly during their time in the UK.

The integration of curriculum across the two systems was generally seen as smooth, minimizing disruptions in learning. As one student described:

"Regarding curriculum design, I found that the integration and alignment with the University of Nottingham in the UK was seamless. When I arrived in the UK, I didn't face any major challenges in my studies. Particularly, when it comes to learning and the structure of the curriculum, I didn't notice any significant gaps or differences. However, the distinction becomes more apparent as you move into higher grades, where courses become more challenging and demanding." (NNS7) This reflection was shared by others who appreciated how the gradual increase in difficulty allowed them to build a strong foundation before tackling more complex subjects, especially in the later years of the programme.

While the majority of students recognized the exceptional teaching and research skills of their instructors, concerns about variability in teaching quality across courses were raised. Participants noted that instructors with extensive industry or academic experience were often more effective in delivering course content and engaging students in deeper learning processes. For example, students appreciated the clarity and depth provided by instructors who had a solid command of their subject matter, especially when they were able to link theoretical concepts to practical applications.

However, some participants expressed dissatisfaction with the perceived inconsistency in the quality of instruction. Several students pointed out that younger or less experienced

instructors, although energetic, sometimes struggled with explaining complex material in a way that was accessible to students. This inconsistency was seen as particularly problematic in courses requiring a deep understanding of difficult concepts. For instance, one student reported facing challenges with an English instructor who adopted a teaching style reminiscent of primary education in China, which lacked the rigor expected in higher education (XLS19). Others mentioned that some British instructors were less dependable, occasionally missing classes without adequate follow-up, which affected the overall learning experience.

Despite these challenges, many students appreciated the flexibility and autonomy granted in the UK system, where they were encouraged to take greater responsibility for their learning. The more relaxed and diverse teaching methods, combined with the increased independence, were well-aligned with students' expectations for a transnational education. Instructors' ability to promote critical thinking and encourage deeper engagement with the subject material were a central factor in students' satisfaction with their overall learning experience.

4.3 Gap between the expectations and perceptions

The outcomes of evaluations that consider the active involvement of students align with the students' accounts of their learning progress. The participants exhibited few complaints or dissatisfaction with their learning experiences, indicating a general level of satisfaction. Nevertheless, these results should not be construed as a complete assurance of their pleasure with their learning. The following section explores to a further extent the students' perspectives on their learning experiences, disregarding the overall indicators.

4.3.1 Diminished teaching quality under the enrollment expansion

Since 2018, both XJTLU and UNNC have been required to expand student enrollment as part of the Chinese Ministry of Education's higher education expansion policy. This growth has been noticeable in recent years. For instance, from 2019 to 2020, the number of students at XJTLU jumped from 3,702 to 4,201, reflecting an 11.9% increase. Similarly, at UNNC, the student population grew by nearly 5% annually from 2018 to 2022. In response to these enrollment increases, both universities implemented strategies to manage the changes. XJTLU focused on expanding its teaching cohorts, which led to an improved teacher-to-student ratio, moving from 1:16.08 to 1:12.44 over the past four years (Table 2). Meanwhile, UNNC has strengthened collaborations and resource-sharing across its branches to improve efficiency in managing its educational resources.

However, participants expressed concerns about declining teaching quality, particularly in relation to the rapid expansion of enrollment at both XJTLU and UNNC. Students observed that the increasing intake of students had strained academic resources and led to a perceived decline in instructional standards. Many attributed this decline to the reduction in ad-

mission thresholds, which, according to some participants, had impacted the overall quality of the student body. These concerns highlight the challenges universities face in maintaining educational quality amid institutional growth and expansion.

"The quality of teaching at the university has declined over the past two years, especially following the expansion of enrollment. For instance, the university initially required a college entrance exam score of at least 560 for admission, but now they've lowered the threshold to 510 to attract more students. This has affected the quality of the student body, and it's not improving each year. Honestly, we're concerned that our university may become a second-tier institution in the near future. It hasn't happened yet, but it feels like it's heading in that direction. This is due to several factors: first, the student numbers are increasing too rapidly, with new campuses being built and a large intake of students whose academic quality isn't as high as before. Second, due to the pandemic, many international teachers don't want to come to China anymore, and some have already left. As a result, the quality of our teaching staff is also decreasing. The new teachers brought in don't have the same level of experience or ability as the previous ones, and there are no senior instructors to mentor these new teachers." (XLS1)

4.3.2 Decline in teaching quality due to faculty turnover

Most participants believed that their teachers met their expectations and expressed satisfaction with the overall teaching quality. However, faculty turnover emerged as a significant issue that impacted students' educational experiences. 11 participants reported that high rates of staff turnover, particularly at their host universities, disrupted the continuity of their learning and mentorship programmes. This instability hindered students' ability to build long-term academic relationships and receive consistent guidance, which they saw as critical to their academic success.

Furthermore, cultural issues such as strikes at UK universities exacerbated the disruptions, leading to missed classes and ambiguity in the learning environment. As one student explained, "The strikes in the UK are so disruptive that we barely attend classes," highlighting how these interruptions negatively affected the learning experience. While students understood the reasons for strikes, the lack of adequate follow-up left them feeling frustrated.

Participants also noted that the university's struggle to retain young and talented teachers had affected the quality of instruction. For instance, one student mentioned that "We had a teacher who was a Harvard postgraduate in English, but he only stayed for two years. He taught us in the first year and then continued with the next cohort before leaving the university." (XLS1)

In addition to the turnover, students pointed to a decline in teaching quality during strikes. One student expressed frustration about a lecturer skipping key material after returning from a strike, stating, "We only have 12 weeks in a semester, and he was on strike for two weeks, so we missed two classes." This inconsistency in instruction caused students to question the value of their tuition and the overall reliability of the teaching process.

Table 2. Enrollment growth and teacher-to-student ratios at XJTLU and UNNC.

Year	Number of enrolled students		Teacher-to-student ratio	
	XJTLU	UNNC	XJTLU	UNNC
2015-16	N/A	7,210	N/A	N/A
2018-19	3,702	8,952	1:16.08	N/A
2019-20	3,702	9,871	1:16.73	N/A
2020-21	4,201	N/A	1:14.7	N/A
2021-22	4,398	10,002	1:12.44	N/A

Notes: N/A: data were not included in the annual quality reports of both universities, and hence no data are available.

Overall, the combination of frequent staff turnover and external disruptions, such as strikes, resulted in a perceived decline in teaching quality, making it difficult for students to have a continuous and structured learning experience.

5. Discussion

Student satisfaction serves as a crucial measure in evaluating the effectiveness and dependability of services delivered by higher education institutions, which is essential for continuous improvement in higher education services (Sapri et al., 2009; Barnett, 2011). Traditionally, satisfaction serves as a broad measure of how students perceive various aspects of university life, often closely tied to the perceived value of their education, which Biggs (2001) and Tsiligiris & Hill (2021) describe as "value for money." However, this study's findings indicate that students' perceptions of whether their education aligns with their expectations may not always be fully rational. Almost all participants expressing contentment with their learning experience overall, while many students exhibited dissatisfaction with specific aspects of TNHE, such as faculty turnover and the quality of teaching in certain disciplines. Despite these concerns, students consistently reported that their overall experience still represented a good "value for money." This paradox can be understood by considering the various reference points students use when evaluating their experiences.

First, students compared their experiences in transnational higher education (TNHE) to traditional Chinese higher education institutions. In comparison, the TNHE institutions offered modern infrastructure, international exposure, and improved access to resources, which students viewed as superior, despite some challenges. Secondly, many students evaluated their experiences by comparing the Chinese and UK systems. Although some struggled with the transition to a more autonomous learning environment in the UK, they appreciated the freedom and flexibility it offered. Finally, students' past academic experiences also shaped their perceptions. For many, the chance to study abroad and gain global experience outweighed the occasional dissatisfaction with teaching quality, allowing them to feel that their financial investment was justified.

A deeper analysis of students' perceptions revealed that they assess their educational experiences based on a variety of personal expectations and criteria. This study supports previous research, such as Zheng & Ouyang (2022), which found that students in transnational higher education (TNHE) often experience a gap between their expectations and reality.

The paradox shows that while students may have concerns about aspects of their daily academic experiences, such as dissatisfaction with faculty or certain challenges, these issues are often balanced by the broader benefits of international education. The prestige of a UK degree, improved career prospects, and the opportunity for global exposure strongly contribute to their perception of "value for money." Even when they face shortcomings, students still view their investment as justified because of the long-term advantages that extend beyond immediate academic concerns.

Drawing on humanistic principles (Winston, 2016) and a student-centered approach to quality assurance, the rigid focus on satisfaction metrics may overlook the individual needs of students by emphasizing standardized measures of "value" and "money." This study argues that a more dynamic and flexible framework, one that aligns students' expectations with their perceptions, offers a more comprehensive way to evaluate quality than relying solely on satisfaction scores. Such an approach can provide higher education institutions with a deeper understanding of quality assurance, allowing them to adjust and improve TNHE accordingly. Furthermore, this perspective fosters stronger collaboration between internal stakeholders, encouraging a more integrated approach to developing TNHE. Prior research has also highlighted the importance of both internal (IQA) and external (EQA) quality assurance processes, which are essential and interdependent in maintaining the quality of TNHE (Martin and Stella, 2007; Vroeijenstijn, 2008).

6. Conclusion

Quality assurance of TNHE should be centered on student perspectives, adopting a more flexible and dynamic approach to better meet their needs. This study conducted semi-structured interviews with 31 current and former students from Sino-foreign universities, including Xi'an Jiaotong Liverpool University and Ningbo-Nottingham University, following the theoretical framework of 3P model.

The findings showed that most students expressed general satisfaction with their learning experiences, there were clear gaps between their expectations and perceptions. Students' perceptions were shaped by their experiences and expectations regarding education quality, highlighting the disconnect between policy intentions and their practical outcomes. These discrepancies suggest areas where improvements can be made to better align quality assurance policies with actual educational outcomes and student satisfaction.

By incorporating these stakeholder perspectives into a more comprehensive framework, this study addresses a gap in the literature and emphasizes the importance of integrating both quantitative metrics and qualitative feedback in efforts to improve the quality of teaching and learning.

Conflict of interest

The authors declare no competing interest.

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