The Impact of International Faculty Knowledge Sharing on Enhancing the Teaching Quality of Local Staff in Higher Education Institutions

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A R T I C L E   I N F O

A B S T R A C T

Facilitating knowledge dissemination is imperative for fostering collaborative interactions among international faculty members. Existing scholarly investigations into knowledge-sharing predominantly manifest a theoretical orientation, bereft of practical case studies and quantitative assessments. In response to this gap, the present study endeavours to quantify the intricacies of knowledge-sharing by conducting a comprehensive analysis. This examination encompasses perspectives from faculty members, students, and educational institutions, with the overarching goal of elucidating its impact on indigenous faculty members within university settings.

The Findings underscore the multifaceted role of knowledge sharing for local faculty members. On one hand, national knowledge sharing emerges as a catalyst for enriching teaching resources, amalgamating extant instructional content, and catalysing transformative shifts in educational paradigms. Conversely, knowledge sharing assumes a pivotal role in facilitating cross-regional and cross-professional exchange of expertise. Quantitative outcomes delineate that knowledge sharing not only enhances the quality of teaching but also elevates the overall standard of academic discourse, including scholarly publications, exchange initiatives, and institutional collaborations. Furthermore, the empirical results highlight that knowledge sharing significantly augments the integration of theoretical principles with practical applications, as well as the accrual of experiential knowledge. The outcomes, surpassing an 85% threshold, underscore the efficacy of knowledge sharing in advancing the collaborative development of shared teaching experiences, resource sharing, and fostering international exchanges and collaborations.

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1. Introduction

Serving as the bedrock of societal advancement and a fundamental prerequisite for cultivating skilled individuals, education plays a pivotal role in fostering social development, facilitating progress, and refining the structural composition of society (Chirwa et al., 2023), it assumes a crucial and indispensable role in the sphere of social development (Dayal, 2023). Faculty members function as knowledge disseminators and educational implementers, occupying a central role in enhancing the educational quality (Hilmy, 2023). Hence, prioritizing the enhancement of faculty members' knowledge base and refining the mechanisms facilitating knowledge sharing among faculty members stands as the foremost imperative within the realm of education (Darmody & Bendis, 2021). Within the global education discourse, a consensus has emerged, emphasizing that the pivotal element in education lies in the refinement of faculty members' knowledge-sharing mechanisms. Consequently, the investigation of faculty members' knowledge-sharing mechanisms has become a prominent research focus (Hsiao, 2022). The knowledge-sharing mechanism involves the optimization of knowledge content, structure, instructional methods, and delivery formats to enhance teaching by aligning them with corresponding instructional content. This mechanism serves to mitigate knowledge redundancy (Llopis et al., 2023), enhance the efficacy of knowledge-sharing, thereby furnishing support for subsequent stages of knowledge integration and penetration (Lv, 2022). The knowledge- sharing mechanism utilizes information and communication technology for cross-regional and cross-professional sharing, aligning with current teaching needs and elevating knowledge to a higher level (Divia Paul, Gaikwad, & Das, 2022).

Owing to distinct educational developmental foundations across various regions, discernible variations exist in the instructional content (Ryan & Koppenhofer, 2022), divergent teaching development foundations across regions contribute to specific disparities in instructional content, methodologies, and pedagogical ideologies. These disparities pose constraints on the enhancement of teaching proficiency, potentially reinforcing entrenched teaching paradigms among faculty members. Some scholars posit that knowledge sharing entails international exchanges of knowledge and personnel, fostering the augmentation and enrichment of faculty members' knowledge while accumulating distinct teaching experiences (Rybinski, 2023), this encompasses pedagogical ideologies, methodologies, and experiential knowledge. Certain scholars contend that knowledge sharing serves as a means to identify deficiencies within the knowledge system, facilitating the expeditious dissemination and transmission of knowledge by faculty members (Sharma & Holbah, 2022). Simultaneously, knowledge sharing identifies exemplary faculty resources, distils teaching experiences, discerns student characteristics and crucial knowledge components, fostering the advancement of personalized teaching methodologies (Swai et al., 2022). Certain scholars posit that knowledge sharing enhances faculty members' work enthusiasm, elevates creativity and execution, and augments overall teaching quality (Tietz et al., 2022). Knowledge sharing serves as a proficient mechanism for knowledge equilibrium, enhancing the fulfilment of teaching tasks, enriching content, and elevating students' interest in learning. It facilitates the identification of common characteristics in students' learning, offering practical support for teaching and learning (Turan, 2022). Moreover, the sharing of faculty member knowledge resources constitutes a personalized mechanism aimed at comprehending and discerning the distinctive requirements of students across diverse regions (Smith Washington, 2022) it aids faculty members in devising tailored teaching plans. Scholars argue that knowledge sharing effectively addresses teaching needs, enhancing student interest and faculty enthusiasm.

Interregional and inter-school knowledge sharing fosters blending and exchange, laying the groundwork for comprehensive education Specifically, Table 1 displays the ranking of knowledge sharing among domestic universities.

Table 1

Ranking of Teaching Quality in Chinese Universities.

Position	School number	Comprehensive score	Star ranking	School level
1	X0	100	8 stars	World-class university
2	X1	99.62	8 stars	World-class universities
3	X2	82.88	7 stars	World-renowned high-level, China's top university
4	X3	82.13	7 stars	World-renowned high-level, China's top university
5	X4	81.58	6 stars	The world's high-level, China's top universities
6	X5	81.24	6 stars	The world's high-level, China's top universities
7	X6	81.12	6 stars	The world's high-level, China's top universities
8	X7	80.15	7 stars	World-renowned high-level, China's top university
9	X8	76.23	6 stars	The world's high-level, China's top universities
10	X9	75.35	5 stars	World-renowned and China's first-class university

Source: China Alumni Association Network

While international faculty members' knowledge sharing offers clear advantages for enhancing the quality of local faculty in universities, challenges persist in its implementation. Factors like faculty engagement, institutional support, and national policy encouragement influence faculty participation in international knowledge sharing (Turan, 2022). Hence, to optimize the impact of international faculty members' knowledge sharing on enhancing the teaching quality of local faculty in universities, it is imperative to bolster faculty training and exchanges, allocate additional resources and opportunities, and secure active support and guidance from educational institutions and governmental entities (Smith Washington, 2022). Table 2 presents the outcomes of the survey on knowledge sharing among international faculty members.

Table 2

Survey of International Faculty Members' Knowledge Sharing.

College Number	The Name of The Activity	Event Location	Form of Participation	Engagement	Degree of Guidance
6	International Education Seminar	Beijing	Participants	70.43	69.50
8	Teaching exchange visits	United States	Communication	69.27	68.72
1	International faculty members' training	Shanghai	training	69.06	69.17
3	International academic conferences	Korea	publication	70.91	68.26
4	Educational exchange programs	United Kingdom	project	71.87	70.04

Figure 1 delineates the analytical process employed for the examination of knowledge sharing among international faculty members.
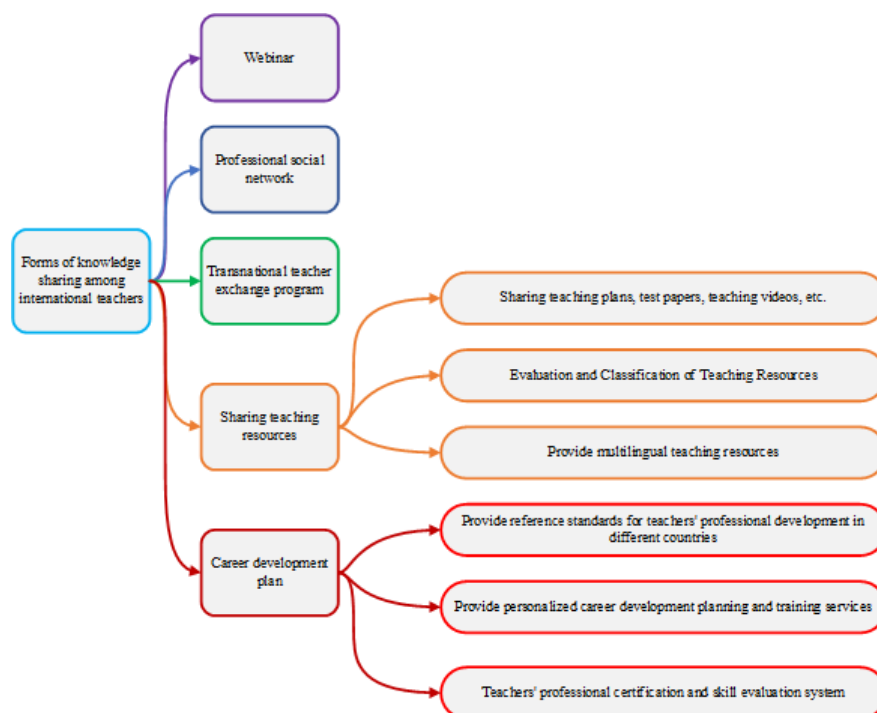

Figure 1*: Forms of Knowledge Sharing Among International Faculty Members.*

In summation, knowledge sharing among international faculty members substantively enhances the teaching proficiency of local university faculty. This paper aims to delve into the specific mechanisms underpinning this influence and illustrate the practical ramifications of international faculty members' knowledge sharing on teaching abilities through case studies and other methodologies. Through this research endeavour, we aspire to furnish both theoretical insights and practical guidance for elevating the teaching quality of local faculty in tertiary education institutions, thereby making a constructive contribution to the advancement of higher education.

2. An Overview of International Faculty Members' Knowledge Sharing

2.1 Definition and Scope of International Faculty Members' Knowledge Sharing

Knowledge sharing, facilitated through regional and professional collaboration among faculty members, utilizes information platforms to share knowledge domains, fostering the evolution of knowledge teaching and the refinement of existing teaching concepts. This process of knowledge integration minimizes redundancy in sharing and enhances the efficiency of knowledge dissemination. Knowledge sharing encompasses three facets: teaching philosophy, methods, and resources. While there may be variations in values and teaching concepts across regions and professions, the overarching goal remains efficient knowledge dissemination. Knowledge sharing

aims not to eliminate personalized teaching but to identify common teaching issues and share relevant experiences. It stimulates faculty members' creativity, cultivates innovative thinking, and discerns student challenges in learning, such as interests and methods. Knowledge sharing serves as a means to achieve educational objectives, refine teaching methodologies, and augment teaching efficacy. Additionally, it represents a responsibility and duty of international faculty members, fostering collaboration and exchange among peers while facilitating the sharing of teaching experiences and challenges encountered in instruction. For instance, nations like the United States and Canada emphasize the importance of knowledge sharing, while countries such as Japan and South Korea prioritize the establishment of sharing mechanisms. In the context of knowledge sharing, faculty members collaborate and draw insights from diverse experiences to enhance their analytical capabilities. Notably, countries like Britain and France underscore the practical application of knowledge, with improved teaching outcomes serving as the evaluative outcome. Therefore, knowledge sharing constitutes an integral obligation for international faculty members and forms the foundation for sharing knowledge resources. This process enriches teaching content, refines teaching methodologies, and optimizes educational resources, including courseware, teaching plans, and instructional materials. Through knowledge sharing, faculty members gain insights, expand inspiration, broaden perspectives, resulting in richer teaching content and more scientifically rational teaching methods. In essence, knowledge sharing serves as a meaningful avenue for bridging disparities among different regions and disciplines, integrating teaching content, and exchanging pedagogical experiences. Furthermore, knowledge sharing plays a crucial role in advancing international teaching development and offers valuable insights for reforming and optimizing international exchange and cooperation. The mathematical description of the data collection for knowledge sharing is outlined below.

Data collection for knowledge sharing: teaching concept data is t_i, teaching method data is x, teaching resource data is y, Data collection calculation function is $f(z\_ij)$, the importance of educational experience is η, and data collection for knowledge sharing is such as formula (1) shown.

$$f(z\_ij) = \sum\_{(i = 1)}^{n} [\![\eta\_i \rightarrow t\_i \cdot x\_i \cdot y\_i]\!] \quad （1）$$

According to Formula (1), under the influence of work experience η , the degree of knowledge-sharing data collection $f(z\_ij)$ is directly proportional to teaching methods x , teaching resources y and teaching ideas t_i.

Within the realm of information communication, the formulation of equation (1) involves the utilization of SQL language. The procedural steps for the Creative Commons data collection are delineated as follows:

```
import requests.
import json
# Set API access address and parameters
api_url = "https://api.example.com" # with the actual API address
api_params = {
 "key": "your_api_key", # with the actual API key
 "query": "your_query", # with the actual query parameters
}
# Send API requests and get responses
response = requests.get(api_url, params=api_params)
```

```
# parsed the response data
data = json.loads(response.text)
# Process data
for item in data["items"]:
 # Extract the required fields
 title = item["title"]
 description = item["description"]
 # Perform further data processing and storage operations
```

Degree of knowledge sharing: The Importance of Knowledge is m_i, the Differences in knowledge among different regions is n_i, The Teaching Function of Sharing Knowledge is v_i, and Evaluation Index of Knowledge Sharing Degree is p_ij^n, shown in Equation (2).

$$p\_ij^n = \sum\_(f(z\_ij)) \text{▦} (m\_i, 1/n\_i, v\_i) \quad （2）$$

In Formula (2), the relationship between knowledge sharing level p_ij^n and knowledge importance m_i and teaching function of knowledge v_i is in direct proportion, and the relationship between knowledge sharing level p_ij^n and knowledge importance n_i is in inverse proportion

According to Formula (2), the knowledge-sharing process and level setting are as follows.

```
# Set API access address and parameters
api_url = "https://api.example.com" # with the actual API address
api_params = {
 "key": "your_api_key", # with the actual API key
 "query": "your_query", # with the actual query parameters
 "sort_by": "your_sort_key", # with the actual sort field
 "sort_order": "asc", # with the actual sort order (asc or desc)
}
# Send API requests and get responses
response = requests.get(api_url, params=api_params)
# parsed the response data
data = json.loads(response.text)
# Sort the data
sorted_data = sorted(data["items"], key=lambda x: x["your_sort_key"], reverse=False) #
with the actual sort field
# Iterate through the sorted data
for item in sorted_data:
 # Extract the required fields
 title = item["title"]
 description = item["description"]
 # Perform further data processing and storage operations
```

2.2 Development Trends and Characteristics of International Faculty Members' Knowledge Sharing

The knowledge-sharing endeavours among international faculty members are a consequence of globalization and the evolving manifestations of educational collaboration

facilitated by communication technologies. The ensuing development exhibits discernible trends and characteristics, as elucidated in Table 3.

Table 3

Development Trends and Characteristics of International Faculty Members' Knowledge Sharing.

Development trends and Characteristics	Description
Frequent cross-border exchanges and cooperation	As globalization intensifies, faculty members express a growing imperative to comprehend and draw insights from the educational practices in other countries and regions. The surge in platforms facilitating global knowledge exchange among faculty members is noteworthy. Through digital platforms, educational exchange initiatives, international workshops, and analogous mediums, educators can now actively participate and collaborate with their counterparts worldwide. This heightened engagement in transnational interactions and collaborative efforts is positioned to surpass national boundaries, fostering an expanded outlook among educators and elevating the quality and standards of education.
Emphasis on faculty member professional development	Elevating the professional development of faculty members is a foundational objective in the context of disseminating global faculty knowledge. Faculty members across diverse countries and regions encounter challenges and evolving dynamics in teaching objectives, educational policies, and teaching resources. By engaging in communication and collaboration with peers, faculty members can contemporize their knowledge and skills, assimilate the latest educational concepts and teaching methodologies, and promptly adapt to shifts in the educational landscape. Consequently, it is imperative to acknowledge and assign value to the significance of faculty member professional development.
Increased focus on personalized teaching	Within the realm of knowledge sharing among international faculty members, educators have the opportunity to exchange and acquire insights into varied teaching methodologies and educational resources. The breadth and depth of this diversity serve as a catalyst for faculty members to concentrate on personalized teaching methods tailored to address the distinct differences and requirements of students. Drawing from the experiences of counterparts in different countries and regions, faculty members endeavour to integrate personalized teaching strategies into their instructional practices, thereby fostering students' enthusiasm for learning and enhancing academic performance.
Sustainable development becomes the consensus.	In the pursuit of advancing educational development and elevating teaching standards, due consideration must be given to the judicious utilization of resources and environmental conservation. In the context of cross-border exchanges and cooperation, a concerted focus should be placed on fostering the sustainable development of resources, sharing, and innovating solutions. Through an approach that is both sustainable and collaborative, knowledge sharing among international faculty members can more effectively meet the needs of both faculty members and students, facilitating the comprehensive development of education.

In accordance with the findings presented in Table 3, the knowledge-sharing initiatives among international faculty members, propelled by globalization and information technology, exhibit discernible trends and characteristics. These include heightened instances of cross-border exchanges and collaboration, a focus on faculty professional development, increased emphasis on personalized teaching, and a consensus towards sustainable development. The cultivation of such educational cooperation introduces novel opportunities and challenges, offering prospects for enhancing educational quality and facilitating educational reform.

2.3 Current Situation and Difficulties of Knowledge Sharing Among International Faculty Members.

The present circumstances and challenges associated with knowledge sharing among international faculty members encompass the subsequent facets: 1) Disparities in educational systems across various countries and regions, along with distinctions in educational policies, teaching methodologies, and instructional materials, frequently result in language, cultural, and pedagogical barriers for faculty members engaged in knowledge sharing. 2) Despite the existence of numerous exemplary global educational resources and knowledge, their dispersed nature across different institutions and platforms poses a challenge for faculty members. Information overload and the difficulty in locating suitable channels and platforms often impede effective utilization. 3) Limited opportunities for exchange and cooperation among international faculty members, coupled with the absence of a dedicated platform for such exchanges, hinder seamless communication and knowledge sharing. 4) Linguistic and cultural variations among international educators present challenges, impinging on comprehension and effective communication. Language barriers and cultural disparities can lead to misinterpretations and miscommunications, influencing the depth of interaction and collaboration among faculty members. 5) Faculty members contend with time and resource constraints in their professional responsibilities, making it challenging to allocate sufficient time and energy to engage in knowledge sharing initiatives among international peers. 6) Regulatory frameworks and educational policies may impose restrictions on cross-border cooperation and knowledge sharing among faculty members. Legal and policy constraints on the utilization and sharing of educational resources in different countries further compound these challenges.

The aforementioned issues and complexities pose formidable obstacles to the knowledge sharing endeavours of international faculty members. Addressing these challenges necessitates concerted efforts within the international education community to strengthen cross-border cooperation and establish comprehensive platforms for international exchange, thereby fostering educational reform, knowledge sharing, and the development of transnational education.

3. The Contribution of International Faculty Members' Knowledge Sharing to Teaching Quality

3.1 Improve the Knowledge and Skills of Local Faculty Members in Higher Education.

The dissemination of knowledge among international faculty members assumes paramount importance in fostering the development of knowledge and skills. Engaging in communication and collaborative learning with faculty peers from diverse countries and regions provides local faculty members with opportunities to acquire teaching experiences, methodologies, and broaden their intellectual perspectives. Exposure to various cultures enables an understanding of diverse teaching models and educational concepts, proficiency in teaching skills, and an enhanced capacity to comprehend the student body. Furthermore, international faculty members' knowledge sharing facilitates the exchange and collaboration of educational resources. Through the sharing of educational resources and the assimilation of advanced educational concepts from other regions, local faculty members can enrich their teaching content and resources, thereby enhancing teaching quality.

Simultaneously, such knowledge sharing opens avenues for research collaboration and professional development opportunities from distinguished scholars and experts within

the international education community. This continuous engagement contributes to the ongoing improvement of teaching abilities and professional development. The positive impact of international faculty members' knowledge sharing on the enhancement of knowledge and skills among local university faculty members is evident, as illustrated in Figure 2, based on the analysis of relevant domestic literature.
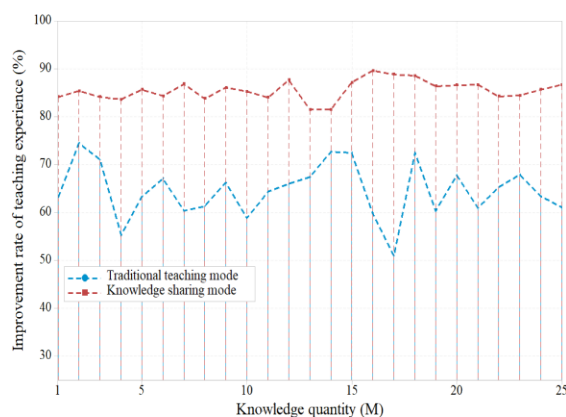

Figure 2: The Teaching Experience of Local Faculty Members in Higher Education.

Figure 2 reveals notable distinctions in the teaching methodologies and experiences among local faculty members. Knowledge sharing emerges as a catalyst for enhancing teaching standards, leveraging the full potential of faculty members' teaching experiences, and fostering improved pedagogical practices.

3.2 Impact on The Teaching Strategies of Local Faculty Members in Colleges and Universities

Through engaging in cross-cultural interactions and knowledge acquisition with educators from diverse national and geographical contexts, domestic faculty members have the opportunity to familiarize themselves with innovative and diverse pedagogical approaches and methodologies. Exposure to teaching methodologies in varied locales empowers educators to explore alternative instructional techniques and pedagogical paradigms, subsequently integrating these into their teaching practices. This integration not only expands the cognitive scope of local educators but also instils novel pedagogical concepts. Simultaneously, this experience deepens local educators' insight into the distinctive educational requisites and attributes of heterogeneous student populations. Within the milieu of international faculty members' knowledge sharing, local faculty members gain insights into diverse educational challenges faced by other regions, encompassing issues such as a scarcity of teaching resources and student diversity. Through effective interactions with other faculty members, local educators acquire methods and strategies to address these challenges. Moreover, the sharing of international faculty members' knowledge fosters mutual inspiration among faculty members, stimulating innovation and critical thinking. Through interactions with faculty members from different regions, local educators can reciprocally share their teaching practices and experiences, facilitating mutual learning and advancing their professional development, as elucidated in Figure 3.
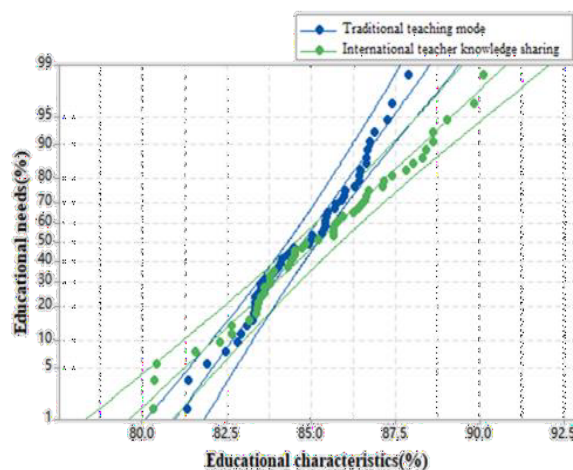
Figure 3*: Comparison of the Implementation of Teaching Strategies.*

Based on the findings depicted in Figure 3, it is evident that knowledge sharing enhances the utilization rate of faculty members' teaching strategies, functioning effectively in the application of teaching strategies to address actual teaching requirements. Conversely, traditional teaching methods exhibit a low application rate of teaching strategies, coupled with relatively diminished satisfaction with teaching needs.

4. Case Studies of Practices in International Faculty Members' Knowledge Sharing

4.1 Implementation Environment for International Faculty Members' Knowledge Sharing

Through an examination of the case studies presented in this paper, it is discerned that knowledge sharing contributes to the enhancement of teaching quality and facilitates a more cohesive incorporation of the knowledge-sharing concept. The specific outcomes are delineated in Table 4.

Table 4

Implementation Environment for International Faculty Members' Knowledge Sharing.

Device Type		Transfer Rate	Compatibility	Endpoint Utilization
hardware	Service terminal	83.25	83.50	88.01
	router	84.05	82.80	86.64
	switchboard	80.05	86.72	83.62
Software	Windows Server	85.00	85.00	86.25
	WordPress	82.49	87.23	83.80
	PostgreSQL	82.26	84.46	86.39
	firewall	83.30	82.91	87.11

The information presented in Table 4 indicates that the software and hardware employed in the test exhibit regular functionality. The software and hardware effectively facilitate the transmission of collected knowledge-sharing data, with the compatibility of data transmission and the utilization rate of distinct data acquisition servers surpassing

80%. This observation underscores the negligible impact of hardware and software on the knowledge-sharing data test in this study, thus substantiating their capacity to provide foundational support for subsequent knowledge-sharing analyses.

4.2 Impact on the Teaching Quality of Local Faculty Members in Colleges and Universities

Diverse practical models and platforms exist for the knowledge sharing among international faculty members, with the ones selected for examination in this paper outlined in Table 5, detailing their specific attributes.

Table 5

Impact of Shared Platforms on Teaching Quality.

Content	Degree of Demand	Interest Value	Utilization Rate
Academic exchanges	81.90	86.87	84.51
Academic journals	82.39	86.66	87.39
publication	83.16	83.92	82.62
Educational programs	83.85	86.44	83.89
Exchange Program	84.72	84.93	83.79
Online Community	82.52	86.63	85.66
Educational institutions	80.85	85.48	85.67

From the information presented in Table 5, it is evident that international faculty members employ diverse methodologies for knowledge sharing, with faculty members having the flexibility to select methods such as periodicals and books based on their specific needs. Survey data demonstrates that knowledge sharing has yielded heightened interest among faculty members, leading to increased resource utilization and demand. Additionally, this practice broadens faculty members' perspectives, enriches their knowledge base, and fosters ongoing exchanges within the global education community.

The data in Table 5 further reveals that universities have established online platforms to create a community wherein local faculty members can share teaching resources and experiences. This platform facilitates the exchange of teaching cases, educational research outcomes, and other relevant materials among faculty members, promoting interaction and collaboration. Such a community engenders a conducive academic environment, fostering innovation and collaboration among faculty members, as illustrated in Figure 4.
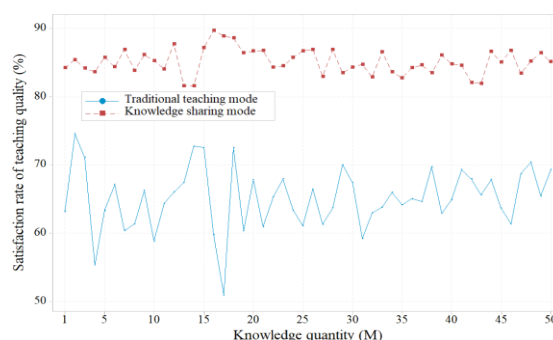

Figure 4*: The Process of Change in Teaching Quality.*

The outcomes depicted in Figure 4 demonstrate that knowledge sharing enhances faculty members' creativity, augments collaboration frequency, and improves teaching and research practices. To further broaden the international perspectives of faculty members, the university has instituted exchange programs with numerous foreign institutions. Local faculty members engage in academic exchanges and study visits to foreign universities and host teaching seminars conducted by international faculty members. These cross-cultural knowledge-sharing initiatives expose local faculty members to contemporary educational concepts, fostering innovation in teaching. Moreover, the university regularly invites education experts worldwide for lectures and guidance, providing opportunities for direct interaction with international education community leaders. This engagement enables faculty members to access the latest educational theories and practical experiences. By incorporating advanced teaching methods from international sources, faculty members enhance their professional qualities and apply this knowledge to classroom instruction, thereby elevating teaching quality. Through these measures, the university's faculty members have cultivated a community of learning, sharing, and cooperation, effectively promoting the enhancement of local teaching quality. International knowledge sharing equips faculty members to access cutting-edge educational resources and expand teaching approaches, ensuring superior student education and training.

4.3 Comprehensive Teaching Effect on Colleges and Universities

The act of knowledge sharing serves to facilitate exchange among international faculty members, fostering a deeper comprehension of knowledge, the sharing of teaching experiences and methodologies, and the improvement of classroom instruction. On dedicated platforms, faculty members share successful experiences, teaching cases, and resources, stimulating innovative thinking and teaching inspiration. This process also involves the systematic summarization of experiences and lessons from practical applications, engaging in in-depth research on education, discussing educational research outcomes, and promoting the reciprocal exchange and integration of educational theory and practice. The exposure to diverse instructional concepts and methodologies from varied nations and educational frameworks contributes to the augmentation of pedagogical proficiency and the broadening of perspectives among educators. It is imperative to ensure the effective implementation of practices related to the global exchange of faculty member knowledge through robust technical support and safeguarding measures, as delineated in Table 6.

Table 6

Comprehensive Teaching Effects of Knowledge-Sharing Platforms.

Index	Engagement	Combination of Theory and Practice	Experience Lift Rate	Teaching Impact
Teaching experience sharing	90.41	93.04	92.45	90.00
Sharing of teaching resources	87.04	88.51	91.01	90.39
Learning Community	89.49	89.76	91.27	89.36
Cross-domain communication	91.85	92.66	91.10	91.63
International educational cooperation	90.61	89.71	88.33	92.66

Table 6 delineates that the adoption of knowledge-sharing initiatives among international faculty members contributes significantly to educational advancement and faculty development. This encompasses improvements in teaching influence, the ability to integrate theoretical principles with practical applications, heightened engagement in pedagogical

activities, and the refinement of teaching experiences. The establishment of an accessible and comprehensive platform that fosters mutual assistance, encourages experience sharing among educators, and facilitates the exchange and integration of pedagogical concepts and methodologies emerges as a crucial mechanism for implementing knowledge-sharing practices among faculty members. Simultaneously, it is imperative to fortify technical provisions and protective protocols to ensure the seamless operation of the platform and safeguard the confidentiality of user data, as delineated in Figure 5.
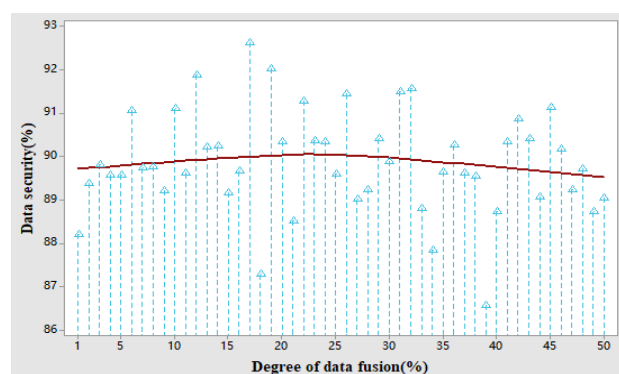

Figure 5: *Stability of knowledge sharing.*

4.4 Impact on the Teaching Quality of Local Faculty Members in Colleges and Universities

Active participation in global faculty member knowledge-sharing initiatives has a positive impact on enhancing the quality of local university educators. Initially, this engagement provides local instructors with a platform conducive to broadening their educational perspectives. Collaborative interactions with international counterparts endow local educators with insights into diverse educational paradigms, instructional approaches, and contemporary advancements in scientific research from various global locales. This expanded global outlook encourages profound reflection on pedagogical challenges and equips educators to adeptly navigate them, thereby elevating instructional benchmarks. Moreover, knowledge sharing among international faculty members effectively facilitates the exchange of educational resources. Local faculty members gain access to educational materials created and utilized by their counterparts, including lesson plans, courseware, exercises, and more. These resources enhance the content of faculty members' teaching, offering new inspiration and materials. Additionally, through exchanges and collaboration with international faculty members, local educators can glean insights from best practices in teaching observed in other countries and regions. This includes innovative and effective teaching strategies, curriculum design, assessment methods, and more, contributing to further improvements in the quality of teaching.

5. Conclusion

Knowledge sharing assumes a crucial role in the development of international faculty members and the enhancement of teaching quality. This study undertakes an analysis and quantification of the knowledge-sharing process. The findings indicate that knowledge

sharing contributes to the improvement of teaching quality and the overall elevation of academic exchanges, publications, exchange plans, and educational institutions. Concurrently, knowledge sharing enhances the fusion of theoretical and practical elements, augments the accumulation rate of experience, and fosters the advancement of sharing teaching experiences and resource sharing. Ultimately, knowledge sharing refines faculty members' teaching organization, enriches teaching knowledge and experience, transforms teaching concepts, and culminates in comprehensive quality improvement.

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