

# **MOTIVATION FOR OVERSEAS TRAINING AMONG CHINESE UNIVERSITY TEACHERS - AN SDT MODEL ANALYSIS**

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## **ABSTRACT**

This study delves into the motivations behind Chinese university teachers' pursuit of overseas training opportunities, employing Self-Determination Theory (SDT) to analyze the underlying reasons and impacts on their professional development. Through in-depth qualitative interviews with 27 teachers, the research explores the influence of cross-cultural training on the core SDT dimensions: autonomy, competence, relatedness, and satisfaction. The findings reveal that a supportive training environment, which caters to these psychological needs, substantially boosts teachers' intrinsic motivation, leading to enhanced teaching practices, research capabilities, and cross-cultural competencies. The study highlights the critical role of fulfilling basic psychological needs in enhancing teacher motivation and the success of overseas training programs. It concludes that for the internationalization of higher education to progress, overseas training initiatives must be designed to meet the autonomy, competence, and relatedness needs of participating teachers, thereby fostering a more engaged and satisfied academic workforce. This research contributes to the understanding of how cross-cultural training can be optimized to support the professional growth of educators and the strategic development of universities within the context of global educational initiatives.

**Keywords:** BRI; Training; Self-Determination; Cross-Culture; University Talents.

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## **1. INTRODUCTION**

The Belt and Road Initiative encompasses more than 65 key countries, with a combined population exceeding 4.6 billion and an economic output surpassing 27 trillion dollars (Zheng, 2021). The strategy's implementation has caused all kinds of resources in countries along the line, including China, to move rapidly. The most direct effect is to stimulate economic growth in countries and regions along the line, activate market demand, increase employment opportunities, and expand the need for talent. In response to the demand for international talent in the BRI, posited that the comprehensive promotion of BRI construction has created significant opportunities for China's industry. However, it has also resulted in a significant shortage of international talent. Kang (2019) concluded that international talent is essential to support the BRI strategy's implementation. The rapid promotion of the BRI construction process has made the current shortage of international talents a significant factor that is affecting the smooth implementation of the BRI strategy.

The Chinese government has provided policy support and financial guarantees for international talent training. It is a significant step towards implementing the strategy of reinvigorating China through talent. Under this framework, various "plans" and "opinions" continuously Song (2017) emerged from 2011 to 2023, effectively planning the international talent development of colleges and universities. As the final step in policy implementation, Chinese colleges and universities have acknowledged the significance of developing international talent.

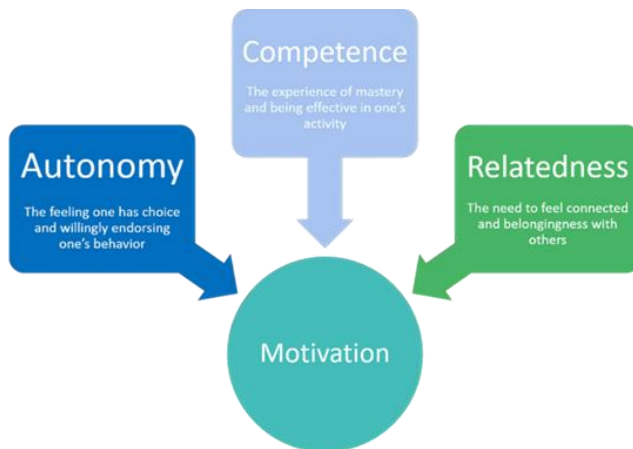
Despite state university teachers' efforts to increase international exchange activities, universities—particularly key institutions—have established incentives and support programs for international cooperation and exchange. Lai and Xu (2022) illustrate that young teachers generally have a sense of international cooperation, but their participation is not high. A university in Henan province, China, has 1,522 teachers. From 2016 to 2021, a total of 70 teachers participated in overseas programs, including overseas visiting scholars and students studying abroad. However, teachers generally lack a sense of initiative, demonstrating low enthusiasm for participating in internationalisation efforts. Only a fraction of teachers actively participate in this endeavor, reflecting a lack of urgency and mission. This situation not only hinders the personal development of teachers, but it also restricts the further enhancement of universities' internationalisation.

The general purpose of this study is to find out the impacts of international training and advanced study on teachers, and uncover the underlying reasons that motivate teachers to pursue such opportunities. In the context of BRI, based on the key dimensions of the Self-Determination Theory (SDT)—autonomy, competence, relatedness, and satisfaction, the problem statement focusing on the teachers' determination and motivations in overseas training projects are formulated. This investigation into the phenomenon will be able to highlight better understanding of the complexity of teachers' behaviours.

## 2. THEORETICAL MODEL AND RESEARCH QUESTIONS

### 2.1. The SDT Model

SDT is a well-established learning motivation theory proposed by American psychologists Deci and Ryan (1985-2000). The researchers of self-determination theory began by studying the motivation of individual behaviors. Deci and Ryan (1985) argued that the generation of intrinsic motivation is closely linked to three needs: autonomy, competence, and relatedness, as shown in Figure 1 below, and the satisfaction of the three needs would also affect the internalisation of external motivation (Deci & Ryan, 2000). After years of development and research, self-determination theory has emerged as a comprehensive theoretical framework and research model, bolstered by numerous empirical research studies, making it a motivational theory of great interest to many researchers. SDT has three basic psychological needs to satisfy: autonomy satisfaction, ability satisfaction, and belonging satisfaction.



**Figure 1:** Self-Determination Theory by Deci and Ryan

Recent studies have indicated that teachers' determination and motivation may be significantly impacted by several factors of the SDT. It comprises four key dimensions: autonomy, competence, relatedness, and satisfaction. These dimensions are crucial in understanding how individuals' needs are fulfilled and how this affects their motivation and well-being.

This dimension examines how teachers perceive autonomy in selecting, planning, executing, and evaluating their training experiences. It pertains to their personalized learning objectives, adjustments to learning pace and methods, and demonstration of initiative and creativity during the training.

This dimension concentrates on teachers' confidence in their ability to successfully complete overseas training and derive benefits from it (Handrianto et al., 2021). It involves their assessments of their professional level, language proficiency, intercultural communication skills, and adaptability to new environments, as well as their faith in enhancing these competencies through training.

This dimension investigates the degree to which teachers' need for meaningful connections with others (e.g., mentors, peers, local community members) is satisfied during overseas training (Kurihara, 2007). Strong interpersonal networks may provide emotional support, information sharing, and collaboration opportunities, enhancing teachers' sense of belonging in foreign settings and boosting their expectancy value and sense of worth regarding overseas training.

This dimension concerns teachers' subjective satisfaction with the outcomes, personal growth, and professional development resulting from their participation in overseas training, both before, during, and after the experience. High levels of satisfaction are crucial for maintaining teachers' positive attitudes toward overseas training, reinforcing their intrinsic motivation, and serving as a key indicator of the success of overseas training programs.

## **2.2. Research Questions**

In alignment with the SDT model, the general qualitative question is that it's using four core dimensions—Autonomy, Competence, Relatedness, and Satisfaction—to explore the profound impacts of cross-cultural training and advanced study experiences on these dimensions and try to find out the reasons through a qualitative interview.

Regarding autonomy, the freedom to choose and the sense of control over one's learning process are significant motivators for teachers to seek out international training opportunities. Students who perceive greater autonomy in their decision to participate in English study are likely to be more intrinsically motivated and engaged in the learning process (Zhou & Liu, 2023). This autonomy allows them to take ownership of their learning and development, fostering a sense of initiative and agency. Whether teachers who feel autonomous in their decision to participate in international training will be more engaged and proactive in their learning journey is one of the questions to verify.

Competence, defined as the feeling of mastery and capability in one's profession, is a key driver for teachers to participate in overseas training programs. Gao et al. (2008) found that when engaging in academic tasks, students who believed that they were academically competent had stronger intrinsic motivation beliefs than students with low academic efficacy. This suggests that teachers aiming to improve their instructional methods and content knowledge are motivated by the prospect of achieving greater competence in their field. Whether teachers who feel competence in their decision to participate in international training will be more engaged and proactive in their learning journey is the second to address.

Relatedness, the sense of connection and belonging, also influences teachers' motivations. Davis and Wang (2021) highlighted the importance of social support in motivating teachers to engage in continuous learning and professional development. In the context of international training, relatedness could refer to the connections formed with peers and mentors abroad, as well as the support from home institutions. These relationships contribute to a teacher's motivation by providing encouragement, feedback, and a sense of community. Whether teachers who feel a sense of belonging in their decision to participate in international training will be more engaged and proactive in their learning journey is the third to focus on.

Lastly, satisfaction, which encompasses the fulfilment derived from engaging in meaningful activities, is crucial in sustaining teachers' interest in overseas training. Li and Zhang (2021) found that in the influence of materialism on college students' smartphone addiction, the satisfaction needs played a significant role. For teachers, the satisfaction gained from international training can stem from the recognition of the value in expanding one's horizons, experiencing new cultures, and contributing to global educational exchanges. Whether teachers who feel satisfied in their decision to participate in international training will be more engaged and proactive in their learning journey is the fourth to verify.

### **3. RESEARCH DESIGN**

This section discusses the technique of data collection for the qualitative study. These semi-structured interviews and analytical techniques, or general analytical procedures, will be used. Qualitative research demonstrates profound skills in analysing phenomena, but each researcher's method of revealing phenomena is different. The core of qualitative research is to understand individual thinking and behaviours (Keegan & Ward, 2013). Interviews were used to collect qualitative data. Respondents were asked a set of questions about their personal experiences. This kind of semi-structured interview allows researchers to understand and communicate individuals' views, behaviours, and beliefs, which is conducive to a comprehensive understanding of individual perspectives.

#### **3.1. Sample Setup**

Given the extensive information, conducting in-depth research on a relatively small sample would take about 20 to 30 minutes. To ensure a high degree of accuracy, all conversations are recorded and then translated into English. The data is then converted to rich text format (RTF) and set aside. If there are too many interviewees, it will consume a lot of time and energy. If there are too few interviewees, the collected information will be insufficient and lack representativeness. According to the sample proposed by Hennink & Kaiser (2022) and Turner-Bowker et al. (2018), and Malterud et al. (2016) that it is sufficient to interview between 10 and 20 participants for most research projects. Based on the actual situation, 27 teachers with overseas training experience agreed to be interviewed.

The samples were selected from a university, it is in Zhengzhou, the capital of the Henan province. Henan, located in the central part of China, is the birthplace of Chinese civilization. Henan province holds the highest value and serves as a crucial development area for national policies. It has obvious regional advantages and serves as a transportation hub for the entire country. The Ministry of Education has approved the university as a provincial public undergraduate university. It is the key construction of Henan province's "demonstration." A University in Henan application technology type undergraduate university, Henan province master degree awarding project construction unit, Henan province's first batch of "assembly" construction talent training base, Henan province's first batch of "Chinese excellent culture inheritance base".

In this study, 27 teachers (Table 1 below) of different majors with overseas study, visiting study, exchange or post-doctoral study experience were randomly selected to accommodate different perspectives of different disciplines and provide inspiration and reference for teachers in later universities. These teachers were found in the following two ways: first, the International Exchange Office of the school recommended qualified teachers with overseas training experience and agreed to be interviewed as research objects; second, they were found in a snowball way through personal networks.

**Table 1:** Target Interview Population

No.	Gender	Title	Research Field	Nation	Learning Type	Overseas' University	Time
A1	Male	Prof	Materials And Chemistry	France	Visiting scholar	Université Lille 1	2016
A2	Female	Prof	Management Engineering	New Zealand	Visiting scholar	University of Ottawa	2016
A3	Male	Prof	Law	USA	Visiting scholar	Pace University	2017
A4	Female	Prof	Environment Science	Singapore	Visiting scholar	Idris University of Education	2017
A5	Female	ASSOC Prof	Foreign Language	USA	Visiting scholar	University of Manchester	2018
A6	Female	Lecturer	Civil Engineering	Canada	Visiting scholar	Georgia Southwestern State University	2018
A7	Male	ASSOC Prof	Mechanical Engineering	Germany	Visiting scholar	Chamber of Commerce and Industry of Dortmund	2019
A8	Male	ASSOC Prof	Mathematics	USA	Visiting scholar	University of Nebraska	2019
A9	Male	ASSOC Prof	Foreign Language	British	Visiting scholar	University of Manchester	2020

No.	Gender	Title	Research Field	Nation	Learning Type	Overseas' University	Time
A10	Male	ASSOC Prof	Foreign Language	Australia	Visiting scholar	University of Canberra	2020
A11	Male	Lecturer	Economics	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A12	Male	Lecturer	Civil Engineering	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A13	Male	ASSOC Prof	Management	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A14	Female	Lecturer	Design Of Technology	Malaysia	Ph.D. Abroad	University of Canberra	2019
A15	Male	Lecturer	Management	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A16	Female	ASSOC Prof	Language	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A17	Female	Lecturer	Language	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A18	Female	Lecturer	Economics	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A19	Male	Lecturer	Finance	Malaysia	Ph.D. Abroad	University of Sarawak	2019
A20	Male	Lecturer	Civil Engineering	Malaysia	Ph.D. Abroad	Marla College of Technology	2021
A21	Male	Lecturer	Language	Malaysia	Ph.D. Abroad	University of Botella	2020
A22	Female	Lecturer	Chinese Literature	Malaysia	Ph.D. Abroad	University of Botella	2020
A23	Female	Lecturer	Language	Malaysia	Ph.D. Abroad	University of Botella	2020

No.	Gender	Title	Research Field	Nation	Learning Type	Overseas' University	Time
A24	Female	Lecturer	Pedagogy	Malaysia	Ph.D. Abroad	Idris University of Education	2020
A24	Female	ASSOC Prof	Business Management	Malaysia	Ph.D. Abroad	Marla College of Technology	2021
A25	Male	ASSOC Prof	Business Management	Malaysia	Ph.D. Abroad	Marla College of Technology	2021
A26	Female	ASSOC Prof	Business Administration	Malaysia	Ph.D. Abroad	Marla College of Technology	2021
A27	Male	Lecturer	Civil Engineering	Malaysia	Ph.D. Abroad	Marla College of Technology	2021

### 3.2. *Implementation of the Interview*

Implementation procedures for the interview method are described. Before the interview, the research team contacted the interviewees by phone, sent the interview consent and interview outline to the interviewees in advance by email or WeChat, and agreed on the specific interview time and place with the interviewees. Each interview session, whether conducted as a group or individually, involved two researchers, and each respondent will give a 20–30-minute statement on the questions according to the interview outline. The interviewees will be able to freely share their experiences, thoughts, and feelings in a relaxed and harmonious dialogue atmosphere. Listened attentively to capture participants' thoughts and feelings in detail. In the interview, with the consent of the interviewees, the audio was recorded with a recording pen. After the interview, the recording was transcribed word for word into written form, and follow-up calls were made to the interviewees to seek confirmation and additional insights. The researchers carefully verified the interviewees' ambiguous meaning, ambiguous facts, and inconsistent content, thus forming the final interview draft.

### 3.3. *Ethical Considerations*

In this study, all interviewees are informed in advance and agree to participate, thereby avoiding any form of deception or harassment. Confidentiality of all respondents is maintained, and the survey data is utilized solely for research purposes, encompassing the method of data usage and the timeframe for informing respondents. Informed consent is grounded in voluntary understanding and clearly outlines the conditions of anonymity and confidentiality afforded to participants.



Anonymity ensures that participants' personal information remains unknown outside the research group.

#### **4. DATA ANALYSIS AND RESULTS**

Based on the interview research and SDT theory, this section starts with the understanding of university teachers about cross-cultural learning and training, examines their experiences and feelings about cross-cultural learning, and then summarises their motivations for acquiring cross-cultural learning experiences and analyses their self-perception and competition in the process of acquiring cross-border international experiences. Subsequently, these cross-cultural learning experiences shape their academic careers in teaching and research.

##### **4.1. *Autonomy of Cross-Cultural Overseas Study***

University teachers' self-conception and support for cross-cultural training vary due to different levels of understanding and familiarity. For instance, a teacher of Interviewee 12 actively seeks international exchanges, stating, "I invite foreign scholars for exchanges and discussions and hope to secure another opportunity to go abroad" (Personal Communication, January 12, 2022). Interviewee 8, having experienced internationalization, believes in the importance of establishing more channels for cultural understanding (Personal Communication, February 15, 2022). However, Interviewee 3 views cross-cultural experiences as beneficial but not essential and may abandon them if obstacles arise (Personal Communication, February 15, 2022). Interviewee 13 feels the need to adapt to internationalization regulations without having a say in them (Personal Communication, December 15, 2021), while Interviewee 22 feels that current measures limit teachers' participation (Personal Communication, December 10, 2021).

The innate human desire to explore and the demands of globalization encourage college teachers to develop an international vision. Interviewee 16 expressed a personal desire to travel and learn about different cultures to broaden horizons and improve English skills (Personal Communication, December 10, 2021). Interviewee 23 discusses the need to understand and accept cultural differences, as students are exposed to diverse perspectives during their travels (Personal Communication, February 11, 2022). However, cultural differences can cause difficulties for teachers abroad, as illustrated by Interviewee 7, who returned to China due to the struggle with German academic culture (Personal Communication, November 28, 2021), and Interviewee 9, who faced challenges integrating into a foreign group and adjusting communication styles upon returning to China.

Despite the rise in "Chinese fever," English remains the dominant language for international academic and cultural exchange. Language barriers, particularly in English, are seen as a significant obstacle to teacher internationalization. Interviewee 6 found having a Chinese teacher in Canada very helpful for overcoming language barriers (Personal Communication, November 29, 2021). Interviewee 2 highlights the importance of language ability for professional performance abroad (Personal Communication, November 27, 2021), while Interviewee 14 admits to feeling guilty due to poor English communication skills (Personal Communication, November 28, 2021). Interviewee 8 also mentions difficulties in writing English papers and publishing in international

journals (Personal Communication, November 29, 2021). Interviewee 5, a language teacher, emphasizes the importance of acquiring cross-cultural knowledge and concepts through expanded vision or student interaction (Personal Communication, November 27, 2021).

#### **4.2. *Competitive Factors for Career, Research, and Teaching Ability***

Chinese universities favour hiring teachers with overseas experience and offer them higher economic benefits. Promotions and professional competition often require cross-border international experience. Interviewee 16 noted that their school encourages teachers to go abroad and mandates a year abroad for professors as a rigorous evaluation criterion (Personal Communication, December 10, 2021). Interviewee 9 pursued a doctoral program abroad, initially unaware of the great responsibilities that came with it (Personal Communication, November 28, 2021). Interviewee 1 emphasized that the evaluation of academic titles is often the primary reason for overseas visits (Personal Communication, February 11, 2022).

Overseas experiences provide college teachers with insights into international teaching and research, enabling them to understand the latest disciplinary trends and achievements. Interviewee 6 chose to study in Canada under Professor Ruth Hayhoe for her expertise in Chinese higher education (Personal Communication, November 29, 2021). Interviewee 21 explored his academic career direction through an investigation of international frontiers and online postdoctoral job hunting (Personal Communication, November 28, 2021).

Cross-border international experiences require teachers to have international knowledge, global vision, and communication skills, as well as the ability to adapt to cross-cultural knowledge and skills. Interviewee 3 believes that ability and innovation are crucial for overseas post-doctoral work and compensate for language shortcomings, suggesting that if one is skilled, language barriers can be overcome (Personal Communication, February 15, 2022). Teachers should also possess learning and practical abilities to master modern educational thoughts and cutting-edge scientific knowledge, as well as advanced foreign teaching methods and education models for cultivating international talents.

#### **4.3. *Relatedness***

Cross-border international experience often requires lengthy periods away from family, a significant consideration for Chinese individuals who highly value family life. Interviewee 18 highlighted the dilemma of leaving family behind, comparing the experience to that of a migrant worker and expressing the concern of many who may decide not to go abroad for this reason (Personal Communication, November 18, 2021). Interviewee 17 also discussed the stress of balancing a demanding professional life with family responsibilities, particularly when considering the impact of being separated from family during overseas opportunities (Personal Communication, November 18, 2021).

The administrative control in Chinese higher education and the lack of university autonomy can impact the internationalization process. Interviewee 15 felt that the system's rules and utilitarian purposes overshadowed personal interests in her cross-border experience, leading to a lack of motivation and creativity (Personal Communication, January 12, 2022). Interviewee 2 pointed out that the hierarchical nature of domestic universities, influenced by administrative power, limits

teachers' free and equal participation in internationalization (Personal Communication, November 18, 2021). Interviewee 10 expressed confusion over the restrictions placed on participation options by the administrative system, which can hinder teachers' initiative in the internationalization process (Personal Communication, December 6, 2021). Interviewee 6 had to abandon the idea of attending an international conference and establishing international exchanges due to a lack of financial support and leadership, illustrating the challenges of limited institutional measures (Personal Communication, November 29, 2021).

Cultural differences can affect communication and adaptability in cross-border activities. Interviewee 5 discussed the challenges of integrating into a foreign group, including language and communication difficulties due to cultural differences, and the sense of inferiority when interacting with others (Personal Communication, November 29, 2021). These experiences highlight the importance of cultural adaptability for university teachers participating in international activities.

#### **4.4. Satisfaction and the Impact on Teaching**

Intrinsic motivation for learning involves engaging in activities for personal satisfaction and happiness. This satisfaction can drive individuals to actively participate and pursue socially acceptable goals. Table 2 is as follows: Of the 27 interviewees, 1 was very satisfied with the results, 17 were satisfied, 4 were OK, 4 were not very satisfied, 1 was dissatisfied, and 1 was not sure. Among the 27 interviewees, the majority expressed satisfaction with the impact of overseas cross-cultural training and learning on their teaching and research, with over 81% reporting positive outcomes.

**Table 2: The Satisfaction and Aspects of the Study Abroad**

No.	Result of study abroad	What aspects?
Interviewee1	Satisfied	Both scientific research and teaching have been improved
Interviewee2	Very Satisfied	Scientific research: a great improvement in scientific research ability
Interviewee3	Not Bad	Both scientific research and teaching have been improved
Interviewee4	Satisfied	Both scientific research and teaching have been improved
Interviewee5	Satisfied	Both scientific research and teaching have been improved
Interviewee6	Not Very Satisfied	Tight schedule
Interviewee7	Not Very Satisfied	Both efficiency and effectiveness will be affected by the epidemic, and I am relatively uncertain about such a good outcome anyway.
Interviewee8	Satisfied	Both scientific research and teaching have been improved
Interviewee9	Satisfied	Both scientific research and teaching have been improved
Interviewee10	Satisfied	Both scientific research and teaching have been improved
Interviewee11	Satisfied	Both scientific research and teaching have been improved

Interviewee12	Not Very Satisfied	Satisfied: Both scientific research and teaching have been improved Not satisfied: Time is too tight. I have to juggle work, family, and academic study.
Interviewee13	Not Sure, It Depends.	The level of English, I think the investment is not proportional to the return
Interviewee14	Not Satisfied	Too busy, almost all are pushed forward, this emotional impact.
Interviewee15	Satisfied	Both scientific research and teaching have been improved
Interviewee16	Satisfied	Both scientific research and teaching have been improved
Interviewee17	Satisfied	Both scientific research and teaching have been improved
Interviewee18	Satisfied	Both scientific research and teaching have been improved
Interviewee19	Not Bad	Both scientific research and teaching have been improved
Interviewee20	Satisfied	Both scientific research and teaching have been improved

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Cross-cultural experiences expose teachers to different classroom environments and teaching methods. For example, Interviewee 5 observed foreign teachers' serious attitude and interactive teaching style, which they attempted to replicate upon returning to their own classroom (Personal Communication, November 27, 2021). Interviewee 10 noted the emphasis on student reading in foreign classrooms and adjusted their teaching approach to encourage more self-directed reading and student participation (Personal Communication, December 6, 2021). Interviewee 8 incorporated materials and resources obtained from abroad into their teaching, utilizing the latest methods and software (Personal Communication, February 15, 2022).

Cross-cultural learning experiences influence teachers' understanding of the teacher-student relationship. Interviewee 18 observed a more friendly relationship between foreign teachers and students compared to the traditional Chinese model (Personal Communication, November 28, 2021). Interviewee 12 reflected on their approach to student care, shifting focus from overall impact to individual learning processes (Personal Communication, January 15, 2022).

Cross-cultural experiences inspire innovative ideas for student development. Interviewee 10 is involved in exchange programs to enhance teaching and professional development (Personal Communication, December 6, 2021). Interviewee 9, influenced by their doctoral supervisors, adopted a more tolerant approach to student topic selection and encouraged innovation based on their understanding of methods (Personal Communication, November 28, 2021).

#### **4.5. Satisfaction and the Impact on Research**

Cross-cultural experiences allow visiting scholars to broaden their research horizons by observing differences in foreign and domestic research approaches. Interviewee 6 noted the importance of vision in research and the potential to predict China's future developments by studying current Western practices (Personal Communication, November 29, 2021). These experiences often lead to the incorporation of foreign materials and data into their research upon return.

Cross-cultural training fosters good research habits and qualities, generating interest in scientific research. Interviewee 8 found a balance between research direction and interest, attributing part of this to the opportunities provided by their teachers abroad (Personal Communication, February 15, 2022). Even those focused on teaching, like Interviewee 16, found their life pattern shifting towards research after cross-border experiences (Personal Communication, December 6, 2021).

International activities expose teachers to cutting-edge research and advanced tools and techniques. Interviewee 10 incorporated foreign experience and data into their research, realizing the importance of understanding foreign literature for their field (Personal Communication, December 6, 2021). Interviewee 14 discussed mirroring the training methods of their foreign co-mentor, emphasizing the encouragement of probing and cross-flow research discussions (Personal Communication, November 28, 2021). Interviewee 20 recognized the gap in research methods and scientific nature between domestic and foreign institutions and aimed to align more closely with international standards (Personal Communication, November 28, 2021).

Cross-cultural experiences facilitate direct contact with foreign scholars or institutions, opening possibilities for cooperation. Interviewee 19 maintained academic exchanges with their supervisor and participated in their academic activities post-return (Personal Communication, November 28, 2021). Interviewee 11 established cooperative research relations with Australian scholars during their visit, highlighting the importance of such partnerships for future research (Personal Communication, November 28, 2021).

#### **4.6. Results and Findings**

Self-determination theory is one of the two most explanatory theories in motivation theory. Qualitative data analysis shows that individual behaviour's motivation isn't single or simple; it has complexity and is multi-level. Individual ability, autonomy, and relatedness regulate the social factors that influence motivation. Arteaga-Sanchez et al.'s (2020) research also shows that social factors affect individual motivation by providing satisfaction for an individual's three needs.

Individuals always tend to choose behaviours that are good for themselves. When the external environment supports the fulfilment of the three basic psychological needs, individuals develop along a positive and healthy path and can experience a true sense of wholeness as well as a sense of happiness provided by an active life.

**Table 3: The Results and Findings**

No.	Interviewee	Viewpoint	Need Satisfaction	Behaviour Tendency
1	I12	recognize and support cross-cultural training and learning  value international exchanges and cooperation as the important opportunity	satisfied	Increased

No.	Interviewee	Viewpoint	Need Satisfaction	Behaviour Tendency
		the more teachers participate, the better.		
2	I8	establish more and better channels to study foreign culture.	satisfied	Increased
3	I3	cross-cultural training and learning experience are the icing on the cake for their academic career.	satisfied	Increased
4	I13	Language barriers become obstacles	Dissatisfied	Reduced
5	I22	Differences in academic norms and standards bring pressure.	Dissatisfied	Reduced
6	I16	full of expectation of acquiring the scenery or culture in the strange region	satisfied	Increased
7	I23	get in touch with those different people, we can communicate in many aspects, he just has a different view of things.	satisfied	Increased
8	I7	This difference affects the communication and the adaptability in cross-border internationalization activities.	satisfied	Increased
9	I9	how to integrate into a foreign group" was a major problem, differences not only affect her international activities abroad, but also affect her communication with domestic scholars after returning to China	satisfied	Increased
10	I13	language problems are the first, biggest and most important factor restricting teachers' participation in cross-cultural training and learning.	Dissatisfied	Reduced
11	I6	Learning and communication are affected and limited by the level of English.	Dissatisfied	Reduced
12	I2	language ability restricts the performance of a professional level	Dissatisfied	Reduced
13	I14	worried about not being able to fully express the thoughts and ideas, and communicate deeply.	Dissatisfied	Reduced

<b>No.</b>	<b>Interviewee</b>	<b>Viewpoint</b>	<b>Need Satisfaction</b>	<b>Behaviour Tendency</b>
14	18	trouble in writing English papers and publishing in international journals	Dissatisfied	Reduced
15	15	The pressure brought by this atmosphere is also an opportunity, a stage	satisfied	Increased
16	I16	professional title evaluation index and their own career development	satisfied	Increased
17	19	just to complete it for his degree	satisfied	Increased
18	11	the requirement of academic title evaluation	satisfied	Increased
19	16	for a specific expert and her research direction	satisfied	Increased
20	I21	explored the development direction of his academic career	satisfied	Increased
21	12	have international knowledge, global vision, and international communication ability, be able to understand and adapt to cross-cultural knowledge and skills, and avoid localism and ethnocentrism.	satisfied	Increased
22	13	ability and innovation are very important for the overseas post-doctoral work	satisfied	Increased
23	I18	repeatedly mentioned the factors of family belonging, family considerations	satisfied	Increased
24	I17	need family belonging and take care of her families	satisfied	Increased
25	I15	more influenced by the rules of the system and motivated by utilitarian purposes than by my own interests	Dissatisfied	Reduced
26	12	domestic universities, influenced by administrative power, are highly hierarchical, which limits teachers' free and equal participation in the process	Dissatisfied	Reduced
27	I10	the administrative intervention is too large on how to participate	Dissatisfied	Reduced
28	16	The school may have a school policy, it may not match,	Dissatisfied	Reduced

No.	Interviewee	Viewpoint	Need Satisfaction	Behaviour Tendency
29	I5	"How to integrate into a foreign group" is a big factor that bothers her.	Dissatisfied	Reduced
30	I5	impressed by the serious attitude and teaching methods	satisfied	Increased
31	I10	learn, then made corresponding improvements in China.	satisfied	Increased
32	I8	subject-related materials, software, research methods, etc... used for the classroom teaching in China.	satisfied	Increased
33	I4	Cross-cultural training and learning experience have enabled teachers to see different teacher-student relationship	satisfied	Increased
34	I18	friendly relationship, and more emphasis on interaction.	satisfied	Increased
35	I12	Pay more attention to the learning process and communication.	satisfied	Increased
36	I10	Promote the joint cultivation of exchange students between universities	satisfied	Increased
37	I9	The way of foreign supervisors instruct also influences his instruct in China.	satisfied	Increased

**Notes:** Increased = Increased motivation, persistence, engagement; Reduced = Reduced Motivation action, stops or hesitates, depression and so on....

The Table 3 above demonstrates the concept that an environment conducive to fulfilling fundamental psychological needs can significantly bolster an individual's drive and zeal. When these needs are met, a surge of motivation is observed, characterized by:

A more active action force, where individuals demonstrate a greater willingness to engage and participate in activities that contribute to their personal and professional growth. An increased investment of time, effort, and resources into tasks that they find meaningful and aligned with their aspirations. Enhanced persistence, as individuals are more likely to persevere through challenges and setbacks, driven by their inner satisfaction and the support of their environment. Greater success and harvest, particularly in academic realms such as teaching and research, where



satisfaction of psychological needs can lead to significant gains and accomplishments (as exemplified by the experiences of Interviewees 1, 2, 3, and 4).

Conversely, the image also illustrates the detrimental effects of an environment that hinders the satisfaction of these basic psychological needs. In such cases, individuals might find themselves: Experiencing a disharmony between behaviors and psychology, leading to a dissonance that can cause significant distress and discomfort. Facing a reduction in motivation, where the lack of alignment between their actions and their inner psychological state results in a loss of interest and enthusiasm. Encountering obstacles such as stopping action or hesitating, which can impede progress and create a sense of stagnation in personal and professional development. At risk of developing negative states, including physical and mental health issues like diseases, anxiety, and depression, which can severely impact overall well-being and functioning (as reflected in the accounts of Interviewees 13 and 14). It's shown in Figure 2.



**Figure 2:** SDT Interview Verification Result

Figure 2 above encapsulates that when the environment supports the satisfaction of basic psychological needs, individuals experience a higher level of motivation, a more active action force, more investment, more persistence, and greater success and harvest. On the contrary, when the environment inhibits the satisfaction of basic psychological needs, individuals may mechanically follow external rules under pressure, resulting in disharmony between behaviours and psychology, reducing motivation, stopping action or hesitating, and even leading to the emergence of negative states such as diseases, anxiety, and depression.

## 5. CONCLUSION

The qualitative segment, grounded in SDT, consisted of in-depth interviews with 27 teachers, providing detailed personal narratives. The analysis revealed a complex, multi-layered motivational landscape where a blend of ability, autonomy, and relatedness influences individual behaviours. It was evident that a supportive environment that fosters the fulfilment of basic psychological needs enhances motivation, leading to increased investment, persistence, and

ultimately success in teaching and research. Over 81% of interviewees expressed satisfaction with their overseas training, crediting it with tangible improvements in their professional practice.

Within the context of qualitative research, this section employs SDT and relies on semi-structured interviews to thoroughly analyze how overseas training and study impact teachers' academic careers, with a special focus on exploring the underlying reasons and mechanisms. The study's primary goal is to understand the "why" and "how" of the influence that cross-cultural training and overseas advanced education have on teachers, covering several specific aspects.

The research conclusions indicate that feelings of competence, autonomy, relatedness, and satisfaction govern motivation. In the context of overseas training, the collaborative functioning of these factors, which either promote or inhibit teachers' intrinsic motivation, becomes the centre of our attention. According to information gathered from semi-structured interviews, teachers are much more motivated when their training environment meets their basic psychological needs and expectations, such as giving them chances to make their own decisions and feeling more competent, and helping them build good relationships with other people. This positive effect manifests not only in their heightened enthusiasm for professional development but also in their growing confidence in cross-cultural communication and adaptation.

On the other hand, if the training environment fails to offer sufficient support, leading to unmet basic psychological needs, teachers' motivational levels may decrease. Under such conditions, individuals may exhibit reduced activity and indecision and may even experience anxiety or depression. For instance, overly standardised training courses that restrict teachers' autonomy, a lack of acknowledgment and feedback on their skill improvements during exchanges, and the absence of a sense of belonging and mutual support within groups can significantly undermine their engagement and sustainability.

Through interviews, when teachers perceive their continuous progress in a cross-cultural environment, experience a sense of achievement, simultaneously enjoy autonomy in learning and decision-making, and establish meaningful connections with others, their commitment and satisfaction with overseas training notably rise. This not only enhances their professional skills and cross-cultural competencies but also ignites a lasting passion for academic exploration, laying a firm foundation for instructional innovation and research activities upon their return home.

According to the self-determination theory, a work environment that promotes the needs of organisational members for autonomy, competence, and relationships can enhance the intrinsic motivation of trainee teachers and fully internalise the external motivators, to improve the persistence, productivity, job satisfaction, positive work attitude, organisational commitment, and mental health of cross-cultural training and learning (Goldfarb et al., 2023). Therefore, strong support from the three basic supporting dimensions of the school environment, namely autonomy, competence, and relational needs, can significantly influence teachers' self-determination motivation, increase their participation in cross-cultural training and learning, and accelerate the internationalisation of colleges and universities.

External conditions, such as the cultural environment, learning content, and learning atmosphere, can influence teachers' cognitive evaluation of self-competence and self-determination during cross-cultural training and learning, which in turn can influence their needs for ability, autonomy, and belongingness. An ideal cross-cultural training and learning process should be able to meet these three basic needs at the same time. The satisfaction of teachers' basic needs can promote the improvement of teachers' internal motivation and the internalisation of external motivation. The enhancement of motivation makes teachers who participate in cross-cultural training and learning more willing to learn, more active in learning, and more willing to put more time and energy into it, ultimately increasing the participating teachers' sense of identity and satisfaction with training activities (Coxen et al., 2021). In addition, the basic psychological needs of participating teachers can be satisfied, so teachers are willing to participate in future training and learning, generating a virtuous cycle.

1. Promote the self-determination of training opportunities. An effective cross-cultural training should focus on the needs and wishes of participating teachers, the pre-training research, the content and form of the training, and the return visit after the training. Specifically, they must provide environments and conditions that support teachers' autonomy, competence, and relational needs in order to foster their autonomous motivation to complete tasks. For example, teachers are free to customise their training and participate in personalised programmes, creating rich teaching and research environments, including lunch salons and free teacher club meetings.

2. Promote the Sense of Self-Competence in The Form and Content of Training. Teachers' demand for competence can be met through experience substitution, observation, and innovative teaching models, as well as feedback and teaching reflection. Therefore, to provide teachers with competent content and form arrangements, through training courses, peer collaboration, and teaching reflection, to improve teaching ability, through cross-cultural training and learning, every teacher can gain a sense of self-efficacy for future teaching and scientific research. By prioritising teachers' self-development needs and treating them as active learners, the learning approach naturally aligns with their internal requirements. Teachers have the necessary willingness and ability to participate in this type of training. It is easy for teachers to embrace, which gives them a sense of possibilities for development and progress. The higher their sense of self-efficacy and the more serious the teachers are in learning and training, the more they will internalise the knowledge taught in training and the external value system and norms conveyed into their own behaviours and ideas in such a pleasant, interactive, and communicative cross-cultural environment.

### ***Implication of the study***

It is imperative to establish a teacher-centric cross-cultural training and learning system that caters to the psychological needs of educators. Commencing with pre-training research, avoiding the duplication of superiors' tasks, and determining the cross-cultural training requirements, content, and format based on the varying needs of individual teachers is essential. In the process of research, each teacher can make a choice according to his own will. A loose and open space is left for teachers to express their personal opinions freely. Only in this way can teachers truly feel their autonomy and improve their independent support. Teachers will greatly improve their internal driving force, resulting in strong and long-lasting internal motivation.

If the individual is very confident that he is capable of the current task, it means that his psychological need for competence has been greatly satisfied. Therefore, to improve teachers' competence and self-efficacy in cross-cultural training and learning, the content and form must be improved. Initially, align the design of cross-cultural training content with the majors of the teachers; subsequently, keep the content up-to-date with current events; and lastly, tailor the training content to the learning requirements of teachers considering recent advancements. Only this way can the training content attract teachers' interest and attention, helping them develop strong internal learning competence.

When an individual feels love, support, and understanding in the environment, his sense of belonging will be satisfied, and his inner motivation will improve. Therefore, in cross-cultural training, teachers not only need the training content but also need to consider the lack of family warmth and organisational care in foreign countries. Cross-cultural training necessitates the selection of various training forms that align with specific training contents, such as interactive dialogue, group cooperation, guided thinking, visiting, entering the classroom, self-reflection, and network human-computer dialogue learning. This approach enables teachers to actively participate in training and consciously experience the sense of belonging that the training environment brings. Satisfying teachers' sense of belonging can stimulate their motivation to learn, thereby improving its effectiveness. The return visit after the training will also make teachers feel more concerned and respected, which can further strengthen teachers' inner sense of belonging, promote self-learning after the training process, and set good expectations for the next training.

As cross-cultural training and learning personnel, their families should give a high degree of understanding and support to their career pursuits. Family members should form good communication habits with overseas teachers. Teachers involved in cross-cultural training and learning tends to spend most of their time at work, inevitably neglecting the needs of their families. In this case, families should take the initiative to communicate with each other. Communication with overseas teachers about their development and timely understand their inner feelings and development intentions are important and family members should create a harmonious and healthy family atmosphere to ensure their mental and physical health.

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