

An Exploration of English Teachers' Beliefs in the Context of Translation Technology

Yan Huang*, Fang Xie

School of Foreign Languages, Sichuan University of Science and Engineering (SUSE), Zigong, Sichuan, China

**Corresponding Author.*

Abstract: This study investigates the relationship between translation technology and translation pedagogy through the lens of teachers' beliefs. Utilizing a mixed-methods approach, including questionnaire surveys, classroom observation, and semi-structured interviews, data were collected and analyzed from English teachers involved in translation instruction. The findings reveal that teachers' beliefs about translation technology exhibit inconsistencies between their conceptual understanding of learning and teaching, which results in discrepancies between their beliefs and instructional practices. Furthermore, the study identifies that teachers' pedagogical beliefs significantly influence the development of students' translation skills, particularly in the context of machine translation technology, which is independent of teachers' technological proficiency and teaching experience. The study concludes that enhancing teachers' information literacy is crucial for improving students' translation competencies.

Keywords: Translation Technology; Teachers' Beliefs; Instructional Practices; Information Literacy

1. Introduction

The informatization and networking of modern society have endowed translation activities with technological attributes. Translation and technology are constantly being integrated not only in scientific research but also in education and teaching. Leidner and Kayworth [1] point out that discussions of the interaction between different languages and cultures cannot avoid the dimension of information technology. Jiménez-Crespo [2] states that following the linguistic turn and cultural turn, the translation discipline will embrace a technological turn.

Students majoring in translation in China are required to be proficient in using modern information technology and translation tools. Against this background, researchers in China have paid attention to how translation technology can play a role in improving students' translation abilities. Most of their speculations and discussions have focused on the application of technological means in teaching and the construction of translation abilities [3,4]. When it comes to teaching and teachers, an excessive priority granted to language and literature [5], and an obvious lack of interest in the latest translation technology found in teachers [6] are reported in some papers. In other words, technology has not been genuinely implemented into actual teaching practice in China, which, as indicated by some previous research, is primarily attributed to the teachers' subjective avoidance. However, few studies have contributed to revealing the causes of their avoidance. Teachers' roles in consolidating students' basic translation abilities and competencies, especially at the undergraduate level, cannot be ignored. Teachers' actions are related to their beliefs, which are the direct internal factors affecting classroom teaching [7-9]. Therefore, it is of theoretical and pedagogical significance to explore teachers' beliefs about translation technology and its relationship with their actions, so as to identify effective ways to implement technology in teaching practice to improve students' translation abilities.

2. Literature Review

Research on teachers' beliefs commenced in the 1970s. In the 1990s, the exploration of teacher thinking and teaching practices underscored the significance of understanding teachers' beliefs. Teacher beliefs encompass a wide array of factors such as attitudes towards education, teaching, learning, students, as well

as teacher efficacy, cognitive concepts, teachers and students' behavioral motivations, self-concepts, and subject-related beliefs [7]. These beliefs are subjective evaluations and judgments rather than knowledge based on objective facts, and under certain conditions, are closely related to teachers' teaching behaviors [7,9]. Teachers' beliefs are systematic and open, and are interrelated with behavioral experiences. Li and Walsh [10] believe that there is a "symbiotic relationship" between teachers' beliefs and classroom practices. Breen [11] reveals the complex relationship between teachers' beliefs and classroom practices, that is homogeneous beliefs will promote different teaching behaviors, while similar teaching methods may be based on different teaching beliefs.

Foreign language teachers' beliefs can be categorized into several core levels such as language views, teaching views, learning views, role views, environment views, and teaching professional views. These levels are closely interconnected and have a systematic impact on teaching activities. Considering the nature of teachers' beliefs, leveraging them as a starting point can offer insights into the integration of translation technology in teaching. Currently, research on teachers' beliefs primarily focuses on identity [12,13], teacher development [14,15], educational beliefs [16], and the relationship between teaching beliefs and behaviors [17]. Typically, discussions around teachers' beliefs are concentrated within the realm of education, with specific investigations, such as teaching efficacy, mostly targeting preschool, primary, and secondary school educators. However,

there is a notable scarcity of studies focusing on English teachers in higher education, particularly those in translation-related fields. Hence, this research aims to address the following two questions:

RQ1. How do English teachers perceive and incorporate machine translation technology into their own translation practices?

RQ2. In what ways do English teachers facilitate students' utilization of machine translation technology in translation instruction?

3. Research Design

3.1 Research Objects

Based on the purposive and convenience sampling strategy, this study selected 188 respondents enrolled in a specific training class for interpreting and translation teachers as the initial test subjects. Utilizing group discussions, the researchers gathered their perspectives, tested the research questions, refined the questionnaire, and developed the initial survey instrument, which was distributed through online platforms. Out of the 180 received responses, 173 were from teachers using English as their medium of instruction and research, while the remaining 7 were translation enthusiasts and graduate students aiming to enhance their translation teaching and research skills through the course. The survey results indicated that 93.7% of the respondents recognized the significant role of teachers in translation instruction, with all respondents acknowledging the inevitability of machine translation technology. Additionally, 61% expressed their willingness to participate in future research endeavors, and provided their email addresses for contact.

Table 1. Interviewee Profile

Categories	Interviewees/Teachers		
	F	Y	L
Gender	Female	Female	Male
Age	60	31	46
Year of Teaching	36	3	20
Degree	MA	PhD	MA
Academic Title	Professor	Lecturer	Associate Professor
Field of Research	Literature + Translation	Translation + Linguistics	Management + Translation
Technological Proficiency	Understanding Trados & PE	Proficient in CAT & Trados	Proficient in Trados & corpus
Teaching Subjects	Senior undergraduate English majors	Junior undergraduate translation majors	Senior undergraduate English majors

The second close-ended questionnaire was administered a day before the training concluded, spanning two weeks, and yielding 82 valid responses. The results of the second questionnaire revealed that all 82 respondents were actively involved in English teaching and possessed experience in translation instruction. Notably, approximately one-third of the teachers had been utilizing translation technology for over five years, whereas nine individuals (comprising 2 men and 7 women) had never incorporated such technology into their teaching practices. After persistent outreach and communication, the researchers successfully recruited 3 respondents/teachers, including one professor, one PhD candidate, and one dual-qualified teacher for in-depth interviews. Refer to Table 1 for detailed respondent information.

3.2 Research Methods

This is a mixed explanatory research, which serves to bolster research validity and amplify the significance of the findings. Aligned with the current situation of undergraduate translation education in China, this study zeroes in on machine translation technology as the primary focal point of observation.

The initial phase of this research involves administering an online questionnaire survey to elucidate English teachers' viewpoints and attitudes toward machine translation technology during translation practices. The questionnaire survey entails three major parts, encompassing a total of 17 items. Specifically, the first part pertains to a personal background investigation, comprising 5 items; the second part delves into respondents' perspectives on technology within their own translation practices, encompassing another 5 items; while the third part probes into respondents' concepts guiding student technological application, consisting of 7 items. Quantitative analysis of the questionnaire responses is conducted utilizing percentage statistics.

The second phase entails qualitative research, i.e. classroom observation and semi-structured interviews, which aims at elucidating and elaborating upon key findings from the survey data. Following the identification of the three teacher interviewees, WeChat voice call interviews were conducted (averaging 40 minutes per interviewee) to delve into their learning experiences, teaching methodologies,

and perspectives on translation pedagogy. Besides, two non-participatory classroom observations (comprising sessions on translation theory, and basic and practical translation courses, respectively) were conducted. Each classroom observation lasts 90 minutes, to document teaching implementation, organizational strategies, and other pertinent actions during instructional sessions. Findings from classroom observations are mainly used for comparison with teachers' beliefs. Subsequent to the second classroom observation, semi-structured interviews were conducted (on average 60 minutes per interviewee). All procedures were recorded with consent from the three interviewees. After organization of all the recorded materials, follow-up interviews were conducted, including two face-to-face interviews and one WeChat voice call interview (40 minutes per interviewee on average). All recorded and transcribed materials underwent review and confirmation by the three interviewees themselves.

The collected data underwent encoding and analysis in three sequential steps following the grounded theory research model [18], including the initial two steps to categorize meaning units from the raw data and derive conceptual categories, and then to establish connections among concepts and to extract overarching themes. To ensure rigor and validity, feedback from experts for evaluation and recommendations were solicited. Subsequent to iterative refinements, the final three-tier decoding process and the majority of coding methods were positively received by both experts and researchers, thus affirming the reliability of the research data.

4. Results and Analysis

By integrating the data obtained through the above channels, i.e. the second close-ended questionnaire, class observation, and semi-structured interviews, the following results were obtained.

4.1 Teachers' Beliefs about Translation Technology in Their Own Practices

4.1.1 Questionnaire results and analysis

The questionnaire data reveal that 71.95% of the 82 teachers primarily focus on practical translation tasks encompassing ordinary texts such as identification documents, manuals,

agreements, and contracts. The proportion of individuals involved in translating scientific texts which requires specialized expertise is approximately equal to those translating literary works which necessitates strong bilingual literary skills, each constituting less than 10% of the sample population. Moreover, 15.85% of them are involved in translating texts in the humanities outside of the realm of literature. This indicates that English teachers' extracurricular translation endeavors predominantly revolve around applied texts, spanning a broad and diverse array of fields.

Among the 82 teachers surveyed, a significant majority (89.02%) have utilized specific translation technologies for over two years, with 82.93% incorporating online resources like electronic corpora into their translation workflows. A minority of experienced teachers (6.09%) employ Computer-Assisted Translation (CAT) or Post-Editing (PE) tools

in their translation practices. These findings underscore that machine translation technology serves as a valuable resource for information retrieval and efficiency enhancement, supplementing traditional translation methods. However, only a small fraction of respondents (13.41%) frequently leverage machine translation technology, with a mere 2.43% fully acknowledging its potential and role in the translation process. This indicates that in most cases, teachers exhibit a low reliance on technology.

In summary, based on the quantitative findings regarding translation text types, selection of translation techniques, duration of translation technology engagement, and application frequency, it is evident that machine translation technology plays a limited supporting role in English teachers' independent translation practice activities currently in China.

Table 2. Teachers' Beliefs in the Application of Translation Techniques in Their Own Practices

Teacher	Belief Description	Level 1 Coding	Level 2 Coding	Level 3 Coding
F	"Translation is a process of refinement that demands a strong language proficiency... Language is something that one continuously learns over many years."	Translation hinges on language.	Learning driven	Language learning concept
	"The (translated) work is meant to be seen; translation is the bridge between thought and language where machines cannot help."	Translation is independent of technology.	Negation / Refusal	Language concept
Y	"English language exposure began with communication with foreign teachers. Later, learning translation fulfills a deeper level of communication needs."	Translation is a form of communication.	Demand-driven	Learning concept
	"Although I recognize the convenience brought by machine translation technology, I prefer to translate by myself."	Nonessential convenience of technology	Avoidance / Negligence	Self-awareness
I	"I practice first, then theorize. Translation is my pathway to acquiring language proficiency."	Practices construct cognition.	Practice-rooted confidence	Self-efficacy and expectations
	"The traditional models no longer fit the information age. Attitudes towards machine translation technology should change, aiming to utilize it as much as possible."	Embracing technology	Adjustment and adaptation	Concepts of learning and development

4.1.2 Interview results and analysis

In the interviews, the three teachers reflected on their individual translation practices and their encounters with machine translation technology. Teacher F, a seasoned professor specializing in English language and literature, has published two literary translations. While possessing a comprehensive understanding of

translation technology, she has yet to employ it in her own translation practices. Teacher Y holds bachelor's and master's degrees in translation, with doctoral research focusing on corpus linguistics. Although exposed to translation technology since Y's undergraduate studies, practical application primarily occurred during her master's and doctoral

studies. While adept with machine translation technology, its utilization remains infrequent in Y's daily translation practices. Teacher L's background is in mechanical design, manufacturing, and automation. Ever since starting to translate equipment manuals in this industry, L has been exposed to database technology. He pursued further studies in translation, accruing extensive experience with machine translation technology and having published translations in the machinery field. The evolution of the three teachers' integration of translation technology into their respective practices suggests that the adoption of machine translation technology is independent of the duration of their technological awareness construction.

Besides, all three teachers conveyed robust confidence in their own abilities and high expectations for themselves. And they displayed a great willingness to discuss their perceptions of translation practice and translation technology within the context of foreign language learning. For instance, Teacher F remarked, "Translation is a multifaceted cognitive task demanding proficiency in both foreign and native languages, a feat beyond the capabilities of machines." In similar vein, Teacher L underscored, "In the era of big data, translation necessitates enhanced efficiency and accuracy. While proficiency in language tools is essential, it must be built upon a strong linguistic foundation." And Teacher Y stated, "Occasionally, for educational purposes, we may explore various mainstream translation software to identify errors in translated texts....However, technology overlooks the inherently communicative nature of language." Table 2 offers select examples summarizing the interview, highlighting that teachers prioritize the linguistic and language learning aspects over technological competence.

4.2 Teachers' Beliefs about Translation Technology When Instructing Students

4.2.1 Questionnaire results and analysis

Questionnaire data indicate that a significant majority (92.69%) of teachers perceive machine translation technology as beneficial for enhancing students' translation abilities. Additionally, 77.92% of them assist students in utilizing computer-aided translation

technology, 89.27% of them aid students in accessing online information resources, and 66.09% of respondents guide students in employing machine translation tools. However, only a mere 16.83% of teacher respondents acknowledge the efficacy of student technology application. This suggests that teachers generally exhibit a stance of recognition and acceptance towards machine translation technology in instructional activities. Additionally, they would employ specific teaching methods and strategies to facilitate student learning. Nevertheless, the transformative impact of machine translation technology on student translation practices falls significantly short of teachers' expectations.

4.2.2 Classroom observation and interview results and analysis

Through classroom observation and interviews, teachers' beliefs regarding teaching behaviors are elucidated. For example, Teacher F believes that there are not many students like her who will actually engage in literary translation in the end. In alignment with professional development goals, F prioritizes student engagement in teaching, guiding students to cultivate a positive technological outlook and laying groundwork for future employment or advanced studies. Teacher Y collects diverse case studies, encouraging students to analyze original texts and translations from various linguistic perspectives, such as syntax and pragmatics, and fostering an understanding of cross-linguistic nuances. Expressing concern over potential student reliance on machine translation technology, Y dedicates to teaching students to discern authenticity. Teacher L for another emphasizes the cultivation of self-directed learning skills, advocating for students' utilization of MOOC resources to construct knowledge frameworks. L asserts that "Machine translation technology exhibits limitations, yet this doesn't impede its instructional utility....Contemporary college students possess an inherent advantage in the utilization of technology."

In general, teachers' language teaching concept determines the extent to which translation technology is integrated into their classroom practices. Besides, the attitudes and views teachers held while executing their teaching practices may contradict their

language learning beliefs, as illustrated by the following select examples in Table 3.

Table 3. Teachers' Beliefs in Classroom Activities

Teacher	Classroom Activity	Belief Description	Level 1 Coding	Level 2 Coding	Level 3 Coding
F	Analysis of Classic Translation Works	"By comparing the original text and its translation, applying linguistic knowledge to evaluate and analyze the text, one can contemplate translation methods."	Evaluation and analysis promotes thinking.	Self-reflection	Thinking
	Group Discussion	"Regularly dividing the task of reading literature, engaging in group discussions, and persisting with this method will enhance your thinking capacities."	Reading enhances understanding	Methods cultivate thinking.	Development
Y	Individual Report	"The translation of this sentence yields completely different versions on Google and Baidu. Therefore, it's crucial to understand the exact meaning of it, translate it yourself, and then make a judgment."	Machine-assisted translation and self-processing.	Subjectivity	Judgment
	Group Discussion	"Utilize accumulated knowledge to assess the meanings and nuances of the terms you search for, incorporating machine translation results into the discussion."	Discussion of machine translation results	Discerning right from wrong	Identifying authenticity
I	Instruction	"For handling some text translations effectively, it's crucial to possess relevant knowledge and make efficient use of MOOCs, search engines, and other resources for supplemental learning."	Self-study via online resources	Knowledge deficiency compensation	Self-study
	Q&A	"For handling such texts, it is advisable to pay attention to the matching suggestions in the corpus of assignment materials."	Learning via utilizing corpora	Utilizing translation memory	Drawing on insights

5. Findings

Drawing from the preceding research, it is evident that English teachers' language cognition shapes their selection of translated text content in their own practice. English teachers' translation practice is inherently influenced by their language learning and teaching concepts, underscoring the influential role of teacher beliefs on instructional actions. Concerning the selection of translation texts, the three interviewed teachers noted that

economically disadvantaged regions in China tend to have fewer translation assignments, and emphasize the significance of school-based instruction. Objective factors such as stringent management systems and imbalances of supply and demand in the translation market also play pivotal roles in the selection of translation texts. Additionally, teachers' academic background also affect the selection of translation texts. Influenced by her literary background, Teacher F asserts that literary translation mirrors the intricate interplay between language and

human experience. Nonetheless, she acknowledges that, “Literary thinking has broadened my interdisciplinary perspective. Since undertaking translation courses, I’ve endeavored to venture into non-literary translation realms.” Teacher Y, majoring in translation, has her priority in nurturing students’ linguistic acumen. She selects translation tasks based on their instructional relevance, leading her to realize that the instances where machine translation technology genuinely benefits undergraduate translation education are quite limited. Conversely, Teacher L, a part-time translator specializing in a specific field, perceives language as an indispensable tool. He remarks, “With a robust linguistic foundation, I can effectively wield additional tools (i.e. technology) in translation.”

Further research reveals that English teachers exhibit inconsistency between their language learning and teaching concepts when it comes to machine translation technology, resulting in a misalignment between beliefs and actions. This underscores the intricate interplay between teacher beliefs and classroom practices, which is in line with existing literature [10,11]. During discussions, all three teachers drew on their language learning experiences, touching upon aspects such as the essence of language learning, self-efficacy, expectations, learning objectives, values, emotions, and learning development. Categorized within the dimension of learning concepts in teacher beliefs, Teacher F and Teacher Y tend to disregard, avoid, or even reject machine translation technology, largely due to their confidence in their language learning abilities and proficiency, fostering a sense of self-motivation and self-efficacy. However, when it comes to actual teaching objectives, teaching content, teaching effectiveness, and viable teaching methods conducive to learning, they opt to guide students in utilizing technology, fostering independent, critical, and collaborative learning. These elements, measured in teaching, fall within the dimension of teaching concepts in teacher beliefs. The research findings suggest that the discrepancy between teacher beliefs and actions may impede student learning outcomes, a premise warranting further qualitative analysis in subsequent research endeavors.

6. Discussion

This study suggests that teacher beliefs encompass highly intricate constituent elements which are being equally complex and diverse. Teacher beliefs are inherently dynamic, and the correlation between teacher beliefs and actions is not a straightforward linear relationship; rather, inconsistencies between teacher beliefs and teaching practices often arise from a confluence of multiple factors. According to Flint et al. [19], whether teachers align their instructional practices with their beliefs hinges upon the interplay between their beliefs and the practical context. When delving into the underlying reasons, it is imperative to consider a multitude of factors at both macro and micro levels. Overemphasizing certain factors may yield one-sided and subjective conclusions.

This study leveraged translation teacher training as an opportunity to sample teachers’ beliefs about translation technology, albeit within a relatively limited scope. The gathered data, nonetheless, remains indicative of teachers’ beliefs and practices amidst technology integration in instructional activities. This study has the following implications.

Firstly, universities in China are prioritizing information literacy as a cornerstone of translation teaching, a move that aligns with the zeitgeist and addresses market demands and developmental trends. The future of foreign language education in China is intricately linked to the information literacy and information technology proficiency of educators. Pym [20] underscores that the emphasis on translation technology application, project management, and professional competency underscores a redefinition of translation skills in modern society. This redefinition diverges significantly from traditional skill sets, sometimes relegating linguistic proficiency to a secondary role. It is imperative to establish a cultivation mechanism that amalgamates language, technology, and professional knowledge. Even for graduates not pursuing translation-related careers, robust information literacy can foster independent development and lifelong learning, which would indirectly fulfill their educational objectives.

Secondly, it is crucial to encourage

contemporary English teachers to develop a robust technological awareness and cultivate a solid understanding of technological concepts. To ensure stability in our beliefs and maintain consistency between beliefs and actions, efforts should commence with fostering a conducive technological and cultural milieu. This entails integrating hardware infrastructure development with the cultivation of a technological and cultural ambiance, facilitating English teachers' proficiency in technology integration and teaching practices. This integrated approach aims to stimulate the exchange of ideas and academic discourse among teachers, influencing their teaching beliefs and driving reforms in foreign language classroom instruction. Concurrently, it's essential to recognize that contemporary college students, as natives of the Internet era, possess inherent familiarity with modern information technology, exerting a reciprocal influence on teachers' instructional design and decision-making both inside and outside the classroom. It's necessary to implement effective measures to harness this dynamic, fostering collaborative efforts between teachers and students to cultivate professional interests, facilitate mutual learning, and nurture academic excellence, thereby adhering to the educational principle of reciprocal benefit between teaching and learning.

7. Conclusion

The humanistic perspective in information technology promotes the idea that teachers' unique individuality and self-worth should be highly respected, accommodated, and supported in the information era. We contend that to effectively integrate technology into translation teaching, it's imperative to commence by establishing frontline teachers' technological beliefs. This involves exploring solutions to implement technology in the classroom that is consistent with teachers' intrinsic convictions, thereby imbuing technological integration with actionable significance. In addition to translation technology and pedagogy, English teachers involved in translation instruction serve as pivotal focal points in ongoing research areas such as translation competence, translation teacher preparation, and information literacy. And there is a growing inclination within the field of teacher belief research to extend the

focus from individual teachers' internal perspectives to the contextual backgrounds in which they operate. While this study adopts a mixed research model to gather both quantitative and qualitative data, limitations persist in analytical perspectives and result interpretation. Future endeavors can delve deeper by extending the research timeframe, broadening data collection channels, and employing other methodologies.

Acknowledgments

This work was supported by the <Sichuan Foreign Language Literature Research Center> under Grant <SCWYGJ23-22>; <Key Research Center for Smart Tourism in Sichuan Province> under Grant <ZHYR22-01>; and <Sichuan University of Science and Engineering 'Understanding Contemporary China' Teaching Reform Project> under Grant <JG-1672>.

References

- [1] Leidner D E, Kayworth T. A Review of Culture in Information Systems Research: Toward A Theory of Information Technology Culture Conflict. *MIS Quarterly*, 2006:357-399.
- [2] Jiménez-Crespo M A. The "Technological Turn" in Translation Studies: Are We There Yet? A Transversal Cross-Disciplinary Approach. *Translation Spaces*, 2020, 9(2):314-341.
- [3] Mu L. Translation Competence and Translation Testing: Studies on English-Chinese/Chinese-English Translation Tests. *Shanghai Journal of Translators*, 2006: 43-47.
- [4] Xu B. Computer-Assisted Translation (CAT) and Translation Research and Teaching. *Shanghai Journal of Translators*, 2006:59-63.
- [5] He G Q. Tradition, Distinctiveness, Faculty: My Views on the Construction of Undergraduate Translation Programs. *Shanghai Journal of Translators*, 2007:49-51.
- [6] Wang G Y. Opportunities and Challenges in Teacher Training for Translation Programs in the New Era. *Shanghai Journal of Translators*, 2018:1-3.
- [7] Borg S. Teachers' Beliefs and Classroom Practices [M]//*The Routledge Handbook of Language Awareness*. Routledge, 2017:

- 75-91.
- [8] Sharma M, Chakraborty A, Singh N C. Measuring teacher Beliefs about Factors that Promote Classroom Social and Emotional Learning (CSEL). *Social and Emotional Learning: Research, Practice, and Policy*, 2024:100049.
- [9] Spruce R, Bol L. Teacher Beliefs, Knowledge, and Practice of Self-Regulated Learning. *Metacognition and Learning*, 2015, 10:245-277.
- [10] Li L, Walsh S. 'Seeing is Believing': Looking at EFL Teachers' Beliefs through Classroom Interaction. *Classroom Discourse*, 2011, 2(1):39-57.
- [11] Breen M P, Hird B, Milton M, et al. Making Sense of Language Teaching: Teachers' Principles and Classroom Practices. *Applied Linguistics*, 2001, 22(4):470-501.
- [12] Sang Y. Research of Language Teacher Identity: Status Quo and Future Directions. *RELC Journal*, 2022, 53(3):731-738.
- [13] Li W. Unpacking the Complexities of Teacher Identity: Narratives of Two Chinese Teachers of English in China. *Language Teaching Research*, 2022, 26(4):579-597.
- [14] Jamil F M, Linder S M, Stegeline D A. Early Childhood Teacher Beliefs about STEAM Education after a Professional Development Conference. *Early Childhood Education Journal*, 2018, 46:409-417.
- [15] Noonan J. An Affinity for Learning: Teacher Identity and Powerful Professional Development. *Journal of Teacher Education*, 2019, 70(5):526-537.
- [16] Civitillo S, Juang L P, Schachner M K. Challenging Beliefs about Cultural Diversity in Education: A Synthesis and Critical Review of Trainings with Pre-Service Teachers. *Educational Research Review*, 2018, 24:67-83.
- [17] Redding C. A Teacher Like Me: A Review of the Effect of Student-Teacher Racial/Ethnic Matching on Teacher Perceptions of Students and Student Academic and Behavioral Outcomes. *Review of Educational Research*, 2019, 89(4):499-535.
- [18] Corbin J, Strauss A. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Sage Publications, 2014.
- [19] Flint A, Rubie-Davies C M, Peterson E. Teacher Views of Relationships between their Teaching Practices and Beliefs, the School Context, and Student Achievement. *New Zealand Journal of Educational Studies*, 2024:1-17.
- [20] Pym A. Redefining Translation Competence in an Electronic Age. In *defence of a minimalist approach*. *Meta*, 2003, 48(4):481-497.