

Crowdsourcing Translation Model for Non-literature Translation Teaching under the Impact of Epidemic

-Case Study of LSCAT Project of Jinzhong University in China

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Abstract: Since the outbreak of the new coronavirus, the on-line courses have been opened to guarantee the continuance of academic activities during the epidemic prevention and control period. According to a guideline released by the Ministry of Education in China, more than 200 million Chinese students have been educated and taught online. In this context, the traditional teaching model has been challenged. Since in the traditional non-literature translation teaching mode, translation classroom teaching is separated from the real context and the role of the teacher in the classroom is the imparter of knowledge and the student can only be a passive recipient of knowledge, which reduces the enthusiasm of the student 's learning and this traditional teaching mode is not conducive to the translation ability of the student. This study only takes the LSCAT project of the Foreign Languages School of Jinzhong University in China as an example to discuss its application in the teaching and practical training system and it attempts to introduce the model of crowdsourcing translation into the entire non-literary translation teaching process. According to real translation tasks, students are regarded as the true translators to take translation tasks not just the teacher 's teaching objects, so as to guide the students to complete the translation according to the real translation task, help them to improve the translation ability, and make an attempt to have the certain model significance to the correlation specialized teaching and training courses and the correlation design personnel.

Keywords: Crowdsourcing; Non-literature translation teaching; LSCAT project

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1. Introduction

The new epidemic is a major event affecting human beings. After the outbreak of the epidemic, "according to the decision-making and deployment of the Party Central Committee and the State Council, the Ministry of education made a timely decision to postpone the opening of school, and proposed" no suspension of school ", striving to minimize the impact of the epidemic on students' studies. Most universities started online teaching according to the original opening day. Primary and secondary schools generally started online teaching in mid-February. In this way, more than 200 million students conduct education and teaching online, which is undoubtedly the largest scale in the world. As an emergency measure during the epidemic prevention and control period, this unprecedented large-scale online education practice is an important milestone in the development of online education in the world "(Xu Mei, spokesman of the Ministry of education of China). The epidemic makes the education actions blossom overnight. Since the space and time of classroom education have changed, in the face of the epidemic situation, traditional translation teaching is facing great challenges. In view of this situation, this paper will demonstrate how to change the traditional non-literary translation teaching mode through crowdsourcing translation mode, so as to cultivate students' comprehensive business abilities (Wang Chuanying, et al, 2011: 58), which makes the non-literary translation classroom gradually electronic and networked.

2. Literature Review

So far as anyone can tell, compared with literary translation, the main purpose of non-literary translation lies in the effective transmission of information, which is to attach importance to practical translation types. Non-literary translation can also be generally referred to as document translation, practical translation or applied translation. Based on the cultivation of English comprehensive application ability and aiming at developing the students' ability to analyze and solve problems, we should build a comprehensive and multi-disciplinary vocational education; with emphasis on new knowledge and technology, we should create a real working environment and pay attention to the cultivation of skills and personal qualities which are required; We should make the non-literary translation teaching advance with the times in high education. By making full use of various practical training and practice and in the wake of developments in paying attention to methods, students' strong and continuous learning capability and adaptability will be cultivated.

At the 5th Asian Translators Forum of the International Federation of Translators held in Bogor, Indonesia in April 2007, Professor Hannelore Lee Jahnke, chairman of CIUTI and head of Translation Department of Geneva University, pointed out that the in-depth development of cross-cultural communication and the arrival of globalization era make the market-oriented translation demand increase day by day. In order to improve the

quality of translation, improve the quality of translators, and help translators to complete the role of intermediaries in cross-cultural communication, translation training must be market-oriented. Moreover, Professor Martin Forstner, Secretary General of the International Federation of University translation schools and director of the Institute of Intercultural Studies at the University of Mainz in Germany, pointed out that the close relationship between the development of higher education and economic interests makes translation training need to be carried out in a more scientific way in the context of economic globalization. Therefore, translation training institutions must formulate a strategy to help translators better cope with market changes and adjust specific training programs in time. Otherwise, the employability and market adaptability of graduates from translation training institutions will be greatly reduced, and their viability in the translation market will be seriously weakened. In the future translation market, a translator can become a real professional translator only if he grasps various specific skills in the field of cross-cultural communication, and gets his due position in the knowledge society under the background of knowledge economy. In this way, the market demand for them will increase day by day, and the translator will become one of the fastest growing professions in the future.

Since the main characteristics of non-literary translation are wide application and strong practicability, non-literary translation should pay attention to the relevant information provided by the translation client, and combine this information to clarify the function of the translation, as well as the translation effect and purpose to be achieved. Therefore, some translation teaching emphasizes students' attention to specific translation tasks, exercises students' ability to analyze and solve problems independently in the learning process, and regards students as the main body of translation class. There are mainly the following teaching modes: for example, the "process teaching method" advocated by O. Fox is to promote the completion of the whole translation task as a dynamic process, emphasizing the learners as the center of teaching, and to let students participate in the translation teaching process through various forms such as questionnaire and the establishment of translation groups (Fox, 2000).

Besides, the constructivist translation teaching model proposed by Killary has reference values for translation teaching. He advocates attaching importance to the practice in the translation classroom and transforming the role of teachers as the original instructors of translation knowledge into the helpers of students' learning and the managers of translation projects, while students are transformed from the passive receivers of traditional translation knowledge into the main body of classroom activities. Under these circumstances, the students are becoming the participants of translation projects and translation tasks.

In addition, the teaching modes of non-literary translation in some other areas are as follows: Chen Lang and Chai Mingyu (2008:61) discoursed on translation teaching in Britain. In Britain, translation teaching is more open in accordance with personality and communications and serve the society. Firstly, the translation teaching shows that professional oriented translation teaching has an absolute advantage in the English translation teaching system. The translation teaching of professional oriented mode follows the market demand closely, and the courses of study also focus on developing students with strong thinking and entrepreneurship skills by emphasizing the learning and training of certain knowledge and skills in the field of translation practice. In order to make students familiar with their future careers, the school often invites front-line translators to give lectures in order to ensure the contact between students and professionals in the industry, and also arranges

students to practice in relevant institutions or international organizations outside the school before graduation.

Zhang Meifang (2001:42-44), introducing the translation teaching mode of Hong Kong University, pointed out that since the translation course is closely related to real life, and there is no ready-made teaching material available for use, therefore, it requires teachers themselves to be very familiar with the translation needs and operation of the actual society. Many translation teachers have participated in the translation of Hong Kong's basic law and common law. When teachers accept practical translation tasks, they can keep in touch with the society and understand the needs of the society in time. The university curriculum in Hong Kong and Macao is closely related to the needs of the society. There are translation practice courses and translation theory courses; there are traditional literary translation courses, but more practical translation courses. As the learning theme is closely related to real life, students realize that the knowledge and skills they have learned can be directly applied to practice, so they have greater learning motivation.

Furthermore, in today's highly developed information society, the combination of translation teaching and electronic resources has become the support of new translation teaching models. For example, K. Varantola attaches great importance to the significance of corpus in translation teaching and designs a corpus based translation teaching model (Varantola, 2003: 69); G. S. Koby & B. J. Baer advocated the application of diversified modern information technology in task-based approach to translation teaching (Koby & Baer, 2003) ; F.Austermühl attached great importance to the fact that in the process of translation, translators can effectively use the powerful search function of the internet and other network resources to determine translation principles and strategies (Austermühl, 2001).

This section mainly discusses some current translation teaching modes. These modes reveal some links between the practical translation teaching and crowdsourcing translation model. From the above discussion, we can see that in the face of the new network teaching mode, in order to fundamentally solve the problem of non-literary translation teaching mode, we must change the teaching thinking mode and guiding ideology, try to establish a new nonliterary translation teaching mode, so that the non-literary translation teaching conforms to the main development trend of translation teaching mode.

3. The Feasibility of Applying Crowdsourcing Translation Model to Non-literary Translation Teaching and Training

At present, the teaching mode of non-literary translation in China is summarized as follows: (1) in terms of teaching materials, the combination of translation skills and themes is less, and the materials are old and difficult; (2) In terms of teaching methods, most of them have become theory courses, vocabulary courses, knowledge courses, etc. (3) in terms of teaching system, the tradition of emphasizing theory makes the design of translation classroom teaching out of line with the dynamic generation and control of classroom, and in this way less practice makes the student cannot better apply theory to practice. In fact, there is no substitute for practical experience. Hence, the practical teaching is an integral part of non-literary translation teaching. The practical teaching refers to the combination of teaching process theory and practice with more emphasis on students' participatory learning, which can improve students' professional skills, practical experience, working methods, and can train team spirit that the students have a certain organizational management capabilities by the actual cases from real

work projects, Therefore, from the perspective of practical training of non-literary translation teaching, it is particularly important to guide the automatic study with real tasks to cultivate students' team spirit, professional ethics and cultural literacy in the process of teaching. That is why crowdsourcing translation mode is introduced into the non-literary translation teaching mode to assist students in constructing knowledge.

Crowdsourcing was first used by Howe (2006), a journalist from *wired*, an American computer magazine, in a paper entitled *the rise of crowdsourcing*. In 2007, the famous social network Facebook launched bilingual users to volunteer to translate for the website, and make it a runaway success. From then on, crowdsourcing translation has since fleshed out its story. Crowdsourcing translation model has been widely used in social media, non-profit organizations, cultural communication, government agencies and so on, and has rapidly become a new application model in translation industry.

In terms of translation teaching, using crowdsourcing mode to make students participate in real translation activities, or to organize students to complete a meaningful translation project in a small range, is a teaching method of integrating theory with practice. when it comes down to it, crowdsourcing translation mode is a kind of collaborative translation. Students not only exercise their language ability, but also cultivate team spirit, leadership ability and the ability to use network resources to work together (Lu Yan, 2012:78). Because crowdsourcing is "the social production of network society". As educators, we can introduce this kind of company operation mode into our teaching and make our teaching social production. As an educator, we should not only cultivate students' excellent language application ability, but also other abilities, including translation project organization and management ability, technology application ability, leadership and communication ability. To ensure that they can adapt to the future working environment and have a sustainable development path, while "ability is actually a very comprehensive concept. Compared with skills, skills have the characteristics of "impartability, imitation and operability" (Wenjun, 2004:63). He further pointed out that the concept of translation ability "includes not only the knowledge and skills (Language / text ability, strategic ability), theoretical research ability of translation discipline, but also the improvement of students' self-assessment ability, as well as the IT ability which plays an auxiliary role in improving translation ability." (Wen Jun, 2005:64) Afterwards, the feasibility of crowdsourcing translation mode can also be explained from the following two aspects:

Firstly, nonliterary translation training needs the active participation of students. The new media environment represented by mobile phone and internet not only provides the non-literary translation classroom with a variety of live textbooks on translation themes, but also creates the personalized and diverse characteristics of students' requirements for translation classroom. Students are no longer satisfied with the traditional translation teaching mode. The rich and different translations of different subjects arouse students' interest. They are no longer limited to the fixed translation of textbooks. Hence, the translation course operated by the company project will be welcomed and favored by students because it closely follows the demand of the job market. This coincides with the operation idea of "crowdsourcing mode".

Secondly, there is a good external environment for the implementation of "crowdsourcing model" in non-literary translation classroom training. First of all, a single student is no longer a teaching unit for training translation ability, and the project team has become a basic unit of teaching. Thus, different array translation

project teams are constructed. These teams have distinct personality characteristics, and each member of the team has different proficiency in foreign languages. Members of each team can benefit from the translation experience of their own team and other team members, which includes both knowledge and computer-aided translation experience. The experience, of course, also includes the management and organization ability of translation projects, so as to cultivate students' all-round and progressive ability. Secondly, with the advent of the era of big data cloud, the rapid development and popularization of mobile media and internet media build a good teaching platform for teaching and training, so as to ensure the smooth development of the "crowdsourcing" mode of non-literary translation teaching and training, and drive the reform of traditional teaching mode with technological innovation.

In addition, in September 2010, China Translation Association and Beijing Foreign Affairs Office jointly sponsored "international Conference on language services industry " and the concept of "language service industry" was proposed for the first time by the language service seminar, covering translation and localization services, language technology tool development, language teaching and training, language consulting and other business areas. According to the survey of forty four language service enterprises and twenty one non-language service enterprises of different scales, the top three concerns are the proficiency of translation technology and tools, the ability of continuous learning and personal integrity. For language service enterprises, they look for evidence of all-round ability, particularly the translation technology, tools and learning ability mastered by translators. The translator's translation ability has been challenged and the traditional translation teaching has been impacted so that the rigid demand of the market for talents has put forward requirements for the school. Therefore, it is necessary for the translation learning students to understand the translation industry and know the wide application of translation software and tools and the word processing technology required by the information society. Hence, it is the most important task of non-literature teaching to improve the students' ability of sustainable development in operating translation tools in the future. That's why we change our traditional teaching mode by arranging proper explanation of the most popular computer-aided translation tools at present and by the true translation task to teach and practice the basic operation technology of software properly and expand the student's vision.

4. The application of crowdsourcing model in non-literary translation teaching--JinZhong

University in China as the case study

On November 18, 2015, Jinzhong University was awarded the first " LSCAT training base of China Translation Association" in Shanxi Province at LSCAT Innovation Forum. LSCAT training base is a program that transforms the production needs of language service enterprises into practical training services and embeds them into the foreign language teaching system of universities. At the same time, the base makes full use of modern information technology, so that students can apply their knowledge to practice, improve their comprehensive ability and enhance their employment competitiveness. Through this innovative teaching mechanism, universities can cultivate and deliver more language service-oriented talents who can meet the needs of the society. Since 2015, the school of foreign languages of Jinzhong University has started a variety of translation training tasks with crowdsourcing mode. In addition to traditional translation tasks, there are also

vertical e-commerce translation services. For example, Alibaba website source search, commodity word recognition, commodity translation and so on.

This article takes the "AE English Title Meaning Group Segmentation Task" as an example to show how to apply crowdsourcing translation to non-literary translation teaching including not only the specific formulation of translation tasks, but also other specific steps. It should be clear that the teacher is only the translation principal and the coordinator of the translation process, and puts forward reference solutions to the problems in the translation process. All of these are to strengthen the main position of students in the translation activities, so as to really cultivate students' translation awareness.

4.1 Preliminary Planning

This part designs to decompose the basic elements into specific questions for students to think about. Its function is that students prepare for the real translation task through the guidance of teachers, and it is the preliminary auxiliary work for the implementation of the new teaching mode. Students get the answer through the real translation task instead of relying on teachers to indoctrinate the answer to them from the beginning, which is in line with the society learning ideas of cognitive and constructivism.

First of all, the translation task must be true. In order to let students to experience the real translation task as much as possible, the LSCAT project of Foreign Languages College of Jinzhong University contacted the task of Alibaba vertical e-commerce translation for students. Taking AE English title segmentation as an example - "semantic group segmentation" is not only one of the basic skills of translation, but also a skill often applied in language service. Whether it is interpretation or translation, the premise of accurate translation is to be able to quickly judge and correctly distinguish meaning groups.

Secondly, before doing the translation task, the translation teacher needs to explain the characteristics of the translation task to the students in the form of mini on-line class. According to the teacher's introduction and the corresponding materials, the students try to solve the following problems through autonomous learning and discussion in the form of learning groups after class: the context difference between the source language and the target language, the ability of computer network information, the ability of mutual cooperation and communication, etc., and contact the teacher in time to answer the unsolved problems. This step is to prepare for the translation task. In addition, in this preparation phase, the team members shall formulate the operation steps and implementation standard table according to the content of the translation materials. The team leader of each group shall upload the task standard to the class post a few days before the start of the translation class, which shall be reviewed by the teacher and confirmed with the head of LSCAT to unify the translation standard.

4.2 Test

This part aims at conducting the test and arranging the test. As long as the students can access the server address of the courseware installation in the school, they can use the LSCAT training tools to do the test (not necessarily in the classroom), and the teacher can use the machine to check the assignment submitted by the students for training. After the examination, the students can see the standard answer and the analysis of the answer. The AE English title meaning group segmentation test is implemented as follows:

(1). 140 testers participated in the test, each 20 people were divided into - group (A-G), each group was guided by one teacher;

(2). Each person was assigned 50 pieces according to the production standard (the original file name "A3_sample1 " to start the test, after completion, save the file as "original file name - Group No." according to the group and No. (for example, if the student with AA No. 1 is assigned "ae-01" file, after completion, guide the file as "ae-01-a1")

(3). After each person completes 50 pieces of assigned files, according to the Group No., 01 for 20, 02 for 19, 03 for 17, 7 and other pushes are handed over for quality inspection, the two check each other's deliverables and negotiate to correct obvious mistakes.

(4). The instructor of each group is responsible for guiding and supervising the students of this group to complete the test according to the above process, recording the time when the students complete the delivery and conducting spot check on the deliverables of this group of students, pointing out the obvious mistakes found and letting the students correct them, so as to ensure the quality of the deliverables as much as possible;

(5). The relevant record form is in the charge of the staff of the public division in LSCAT: they will fill in and then according to the above file name, the test results (140) will be collected and submitted to the headquarters of LSCAT center before 3 p.m. on April 21st.

After the test, for some common problems in the test, the teacher asks director Hu, head of LSCAT, to further interpret the working standard as a training.

In addition, teachers can organize a live class to answer questions because the students have recorded the unclear or doubtful points about the segmentation and so the teacher can answer them together by we-chat group. Since it is mainly answering questions, it is completed by online voice or video. At the same time, LSCAT group also gets some of the correct marking template update to the school server, convenient for teachers to arrange students' daily training. After the training, we will organize another test of 1000 piece of data in the same way as last time. After that, a formal task assignment is made.

4.3 Quality control

Dimitra (2010), an Irish scholar, believes that the crowdsourcing model has three key success factors: quality, control and motivation. Quality mainly refers to the quality level of translation. Control reflects the safety of translation and the management of translators. Motivation refers to how to motivate crowdsourcing participants. In the training task of this translation class, the real translation task is evaluated by students, teachers, and sponsors of LSCAT translation activities.

This section is discussing the control. Each student's task will not be very hard. If 100 students do it, each student will be in the estimation of 30 to 50 pieces. At eight o'clock every night, the group leader will master the quantity and quality of the tasks completed by the students in this class. For the students who have three obvious quality problems, they will increase rework directly. If they feel that there are any questions, they will directly make the screenshots in the QQ group and ask the person who in charge of the LSCAT and the students will get reply in time. Finally, according to the completion of translation tasks, teachers should include the students' self-evaluation, peer evaluation, teacher evaluation and translation modification into the students' translation evaluation. Only in this way can the evaluation be more scientific and operable. Since the evaluation criteria is open and transparent, students will gradually realize the significance of translation learning in the process of self-evaluation and mutual evaluation.

4.4 Data analysis and questionnaire

This part attempts to prove effectiveness of applying crowdsourcing translation teaching model to non-literary translation teaching in two ways: one is data support and the other is questionnaire support.

Firstly, the paper explores the validity by translation task adoption results for explanation (the final data chart as an appendix at the end of this paper). There are three universities involved in this project including Jinzhong University, Xinzhou Normal University and Changzhi University. There are 422 people in total, including 220 people in Jinzhong. Now the result analysis is about all the students.

NO.	name	2.2 result	2.2finished items	2.2 adopted items	2.23 result	2.23 finished items	2.23 adopted items	3.23 result	3.23finished items	3.23 adopted items
1	zxdCindy	0.36	92.00	33.00	0.36	22.00	8.00	0.79	48.00	38.00
2	小姐姐啊么么蹄	0.55	91.00	50.00	0.44	16.00	7.00	0.50	14.00	7.00
3	盟笙	0.00	1.00	0.00	0.50	2.00	1.00	0.00	0.00	0.00
4	韩韩韩女王 1296	0.72	94.00	68.00	0.83	127.00	106.00	0.71	340.00	242.00
5	半岛阳光 111	0.45	31.00	14.00	0.45	29.00	13.00	0.76	126.00	96.00
6	最可爱的君君呐	0.88	90.00	79.00	0.73	108.00	79.00	0.50	2.00	1.00
7	夕楼 76 的 67	0.56	54.00	30.00	0.48	46.00	22.00	0.00	1.00	0.00
8	cyzer	0.42	31.00	13.00	0.60	15.00	9.00	0.86	63.00	54.00
9	酸奶	0.37	98.00	36.00	0.67	45.00	30.00	0.84	219.00	184.00
10	久寻 jx	0.78	32.00	25.00	0.54	35.00	19.00	0.85	20.00	17.00
11	小古月 6	0.00	10.00	0.00	0.00	3.00	0.00	0.71	7.00	5.00

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Translation Task Adoption Results

The students began to take part in the activity on January 21, and until March 23 and three results have been extracted. The results are shown in the table above and the analysis will be explained as follows:

(1). In two months, the average number of students' items (Read provided product titles, determine which product they refer to and break it into notional phrases using symbol "|". It means the AE English title segmentation), is 2149 and it takes about 220 hours. When we observe the data, the paper finds that the students whose items be adopted twice with 100% adoption rate, have an average item of 3418, and it takes about 350 hours, indicating that the practice is particularly adequate and the operation of the software is particularly skilled. Referring to the official learning time of Microsoft in the office suite as an analogy, one set of office software can be operated skillfully in 20 hours. Hence, the data shows that this project can effectively improve students' proficiency in the use of translation software of LSCAT Transmate.

(2). During the two months, 73.7% (311 out of 422 students) students' translation quality is improved and the average adoption rate of students' items increased by 1.8 percentage point. among which the adoption rate of continuous translation training students (students with three scores) increased by 4.6 percentage point, and 77.12% students (290 out of 370 students), who did the AE English title segmentation in more than 200 hours,

get their items adoption improved. Therefore, it shows that this project can effectively improve students' translation quality.

(3). When they know they get improved, 99.9% (308 students) of the students do the translation tasks continuously (all of them have results for three times), which shows that they are willing to undertake translation projects and really do some translation tasks. Among them, if their items are adopted more than the first adopted items, 100% of the students increase the items number of translation tasks. As a result, it shows that good project performance has a positive effect on students' learning and practice, and the project can effectively improve students' enthusiasm for learning.

(4). In the case of no improvement in the first two times, 94.11% of the students do not increase the items number of translation tasks, however, 63% of the students' adopted items get increased in the third time. That is to say, students with poor grades will not continue to do a lot of items, but they focus on improving the accuracy. Hence, it shows that the project can effectively change students' learning strategies and they will know how to improve their task quality.

Secondly, while the data adoption analysis of three real translation tasks has proved that the ability of students to complete translation tasks has been effectively improved, the paper intends to do a questionnaire to make further effort to prove that the crowdsourcing model with real translation tasks as the core can be introduced into the classroom for students' learning initiative and the ability of self-study brought into full play. Therefore, a total of 220 questionnaires were distributed and 202 questionnaires were recovered, including 202 valid ones. The recovery rate is 91.81%. (because the author works in Jinzhong University, only the questionnaires of students participated in Jinzhong University were made.)

Frequency analysis results of questionnaire				
Question	Option	Frequency	Percentage(%)	Cumulative percentage(%)
1. Through the crowdsourcing translation mode, can you understand the teaching content better?	Yes	192	95.05	95.05
	neutral	10	4.95	100
2. Through the crowdsourcing translation mode, can you better apply what you have learned?	Yes	180	89.11	89.11
	neutral	22	10.89	100
3. Compared with the traditional teaching, is it better for you to master the LSCAT' operating system through crowdsourcing translation mode?	Yes	171	84.65	84.65
	neutral	31	15.35	100
4. Compared with the traditional teaching method, do you adapt to the crowdsourcing mode?	Yes	160	79.21	79.21
	neutral	37	18.32	97.52
	no	5	2.48	100
5. In the teaching process of crowdsourcing translation mode, who do you think is actually centered on?	can't judge	18	8.91	8.91
	student	159	78.71	87.62
	teacher	25	12.38	100
6. Is it easy to cultivate your sense of achievement in	Yes	177	87.62	87.62

accomplishing the task?	neutral	15	7.43	95.05
	no	10	4.95	100
7. Do you really like this way of teaching?	Yes	148	73.27	73.27
	neutral	49	24.26	97.52
	no	5	2.48	100
8. Are the translation tasks provided by teachers suitable for students' learning?	Yes	160	79.21	79.21
	neutral	42	20.79	100
9. The proportion of teaching time of crowdsourcing translation mode is 30% - 80%. Do you think it is appropriate?	Very suitable	158	78.22	78.22
	it doesn't matter	14	6.93	85.15
	too long	23	11.39	96.53
	too short	7	3.47	100
10. Through the teaching of crowdsourcing translation mode, do you think the awareness of teamwork is enhanced?	Yes	175	86.63	86.63
	can't judge	16	7.92	94.55
	no	11	5.45	100
11. Do you think the ability of self-study is improved through the teaching of crowdsourcing translation?	Yes	185	91.58	91.58
	can't judge	11	5.45	97.03
	no	6	2.97	100
12. Do you think the ability of solving problems is improved through the teaching of crowdsourcing translation? ()	Yes	169	83.66	83.66
	can't judge	28	13.86	97.52
	no	5	2.48	100
13. Through the teaching of crowdsourcing translation mode, can you have a clear idea of real translation company?	Yes	174	86.14	86.14
	can't judge	11	5.45	91.58
	no	17	8.42	100
14. Through the teaching of crowdsourcing translation mode, can you apply the professional knowledge you have learned to the actual translation task, including translation preparations, proof-reading and modification?	Yes	166	82.18	82.18
	can't judge	31	15.35	97.52
	no	5	2.48	100
15. After the non-literary translation course, if there is another translation task like this, will you still take part in it?	Yes	183	90.59	90.59
	no	19	9.41	100
Total		202	100	100

Frequency Analysis Results of Questionnaire

Through the statistics of the questionnaire, this paper will make the following description.

The first three questions are about whether the teaching content and translation software can be better mastered by students. As a result, the proportion of students' affirmative answers is 95.05%, 89.11% and 84.65% respectively, which shows that students have a good command of the teaching content after the implementation

of the translation teaching mode based on the crowdsourcing mode.

The fourth and fifth questions are about whether the students can adapt to the student-centered crowdsourcing translation mode and 79.21% of the students say they adapt to the new teaching mode while 78.71% of the students express that the real translation task is completed by themselves who does the translation task, not the teacher or the textbook answer.

The sixth and seventh questions are about students' satisfaction. 73.27 % students say they really like this way of teaching and 87.62% students feel the sense of achievement in accomplishing the task.

The eighth and ninth questions are about students' translation tasks and teaching time. 79.21% of the students think that the translation tasks provided by their teachers suitable for students' learning, and 20.79% of them were neutral. This is the only one of the 15 questions without a negative answer, which shows that students think that the real translation task can be accepted as teaching content in terms of difficulty. 78.22% of the students think that 30% - 80% of teaching time of crowdsourcing translation mode is appropriate, while 11.39% students think that the time is too long, only 3.7 students think that the time is too short. Combined with the data analysis, it can be seen that if translation teaching is driven by real tasks, students will grasp the teaching content faster in a short time.

The tenth, eleventh, and twelfth questions are about the improvement of students' comprehensive ability. 86.63% of the students think that the awareness of team work is enhanced ,91.58% of the students think that the ability of self-study is improved, and 83.66% of the students think that the ability of solving problems is improved. It can be seen that the comprehensive ability of students in all aspects has been improved, and it is surprising that the self-learning ability of students has reached the highest level. It can be seen that if the crowdsourcing translation model is used to promote translation teaching, the enthusiasm of students is very high.

The thirteenth, fourteenth questions are about the project management of translation. 86.14% students think that they have a clear idea of real translation company and 82.18% students think that they can apply the professional knowledge they have learned to the actual translation task, including translation preparation, proof reading and modification.

The last question is about the follow-up. By the time of the questionnaire, the students had already finished the course and left the translation task group. But when asked if there is another translation task like this, will they still take part in it? 90.59% of the students answered yes. It is proved that the teaching mode improves students' confidence and participation in translation.

It can be seen from the above data that crowdsourcing translation teaching mode is effective. Firstly, Students' enthusiasm for learning has been improved and they can effectively complete the relevant translation tasks, and also change the original attitude that "translation is a professional translator 's business and student translators are just trying practice ". Then, through course learning, student's subjective initiative in translation learning has been improved, and also pay more attention to the cooperation with team members in the translation process. Finally, through process evaluation, the standard of real translation task is known which is no longer only dependent on the comparison of reference translation and the single evaluation of teachers as before.

All in all, this section uses data support and questionnaire support to prove the effectiveness of applying crowdsourcing translation teaching mode to non-literary translation teaching. The crowdsourcing translation

teaching mode can not only effectively improve students' nonliterary translation ability, but also enhance students' interest in learning and self-learning awareness. Finally, it can enhance students' confidence in learning translation and improve the quality of translation teaching,

5. Conclusion

The current study is crowdsourcing translation model for non-literature translation teaching under the impact of epidemic by taking LSCAT project of Jinzhong university in China as a case study. The study has investigated three questions, 1) Is it effective for non-literature translation teaching with crowdsourcing translation model? 2) How to make it effective? 3) In what aspects student's ability is improved? The whole study is based on the above three questions. This study has gone through two semesters of 36 weeks of teaching practice, and including two months of crowdsourcing real task participation. With the help of translation task option results and the statistics of the questionnaire, the answers to these three questions, or the main findings of the study are as follows:

Firstly, as for the question of is it effective for non-literature translation teaching with crowdsourcing translation model under the impact of epidemic? The effectiveness is proved by three task option results and the results of the questionnaire survey, it is known that the students' interest in learning, self-learning awareness and translation ability have changed significantly before and after the implementation of the new teaching mode; followed by the statistical analysis and comparison of the pre-test and post-test results before and after the experiment, the adoption rate increased significantly. Then, by sorting out the feedback records after the implementation of the teaching mode, the students' affirmation of this teaching mode is proved.

Secondly, with regard to the second question of how to make it effective? the study mainly centers on students' translation task which is completed centering on crowdsourcing. In other words, "crowdsourcing translation" runs through main stages, including pre-translation preparation, translation strategy selection, post translation evaluation and modification. In the training task of this translation class, the real translation task is evaluated by students, teachers, and sponsors of LSCAT translation activities. In the whole process the three key success factors: quality, control and motivation will make the it effective. Because the quality level of translation has be assured by the teacher and the Alibaba cooperative translation team. At the same time, the safety of translation and the management of translators has been controlled by the crowdsourcing team. Meanwhile, motivation runs through the process all along with the pleasure of real translation task and the piece-rate wage to motivate crowdsourcing participants.

Thirdly, in terms of the third question of in what aspects student's ability is improved? based on data analysis and questionnaire, three general aspects have been involved, 1) To know that translation software and tools are widely used in the translation industry; the ability of the word processing technology required by the information society has be strengthened. And while the popular computer-aided translation tools be brought into the classes, the students' sustainable development ability of operating translation tools in the future has be enhanced. 2) The students' information retrieval ability and their autonomous learning ability by using network translation tools has be cultivated. 3) Through on-the-spot teaching, project training and case teaching, students' translation project organization and management ability have been cultivated.

All in all, the crowdsourcing translation model for non-literature translation teaching through project training and case teaching, make students learn from the modern management concept and management technology, finally the true tasks enable students to learn translation project management skills and to be a qualified translator when it comes to a real translation task and at that time we think the students are going to be pleased that they identified the real problems.

With the support of theory and practice, this study explains that it is an effective model for students to learn non-literature translation more efficiently and to make them more professional by applying crowdsourcing translation model to non-literary translation teaching. Furthermore, in the epidemic period, based on the network teaching system the crowdsourcing translation mode is proved that the teaching model is feasible and scientific.

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