



Different Models of Virtual Exchange in Foreign Language Education

Jiani Guo*

College of International Studies, Southwest University, Chongqing, 400715, China

**Corresponding author. Email: 825590453@qq.com*

Abstract. As technology advances and demand expands, the formation and development of virtual exchange has become inevitable and a relatively complete system has been formed. virtual exchange is widely used in different fields, and it is also very useful for foreign language education. In foreign language education, virtual exchange usually uses models such as e-tandem, telecollaboration, COIL, etc. Through the use of these models, learners can learn a language synchronously or asynchronously through the Internet, giving them full autonomy to communicate with native speakers of the target language online to better practice their language skills, cross-cultural communication skills, etc. In this dissertation, we focus on the following aspects of language learning. In this thesis, we discuss several common models of virtual exchange in foreign language education, the contexts in which these models are often used, and the effects of using these models on students' foreign language skills and emotions in foreign language education. By studying the characteristics and shortcomings of the existing models, comparing and contrasting different models, summarizing the development status of different models, and accurately grasping the current development and application direction of virtual exchange. Through further research and analysis, we optimize and improve its application in foreign language education to maximize its effect and gradually make it an irreplaceable auxiliary tool in the field of foreign language education.

Keywords: Virtual exchange, foreign language education, models, benefit

1 Introduction

With the deepening of internationalization, we are exposed to a cross-cultural environment, where the online exchange has become an important trend in higher education. Through evaluating the learning outcome, the online exchange is found to be able to partly replace the functions of the offline one, therefore becomes an effective way of cultivating the learning skills of students. Although the offline exchange might be better in terms of effects, it is limited to those who are academically high-achieving or from the upper socioeconomic class, and there are always students who cannot easily get access to it since the opportunity can be expensive. Besides, after the breakout of the Covid-19 coronavirus pandemic, it is harder to engage in physical face-to-face cross-cultural communication. In that case, virtual exchange based on network activities gradually attracted great attention. Virtual exchange is the engagement of groups of learners in online intercultural interactions and collaborative projects with partners from other cultural contexts or geographical locations as an integrated part of their educational programs (O'Dowd, 2018). In recent years, virtual exchange has developed into many different models in different fields. Among the most widely used fields of virtual exchange is foreign language education. This field has made full use of virtual exchange as a technology-enhanced teaching-learning model to connect language learners with other users of the target language and help the learners gain experience in cross-cultural communication since the early days of the Internet for over 25 years (Tella, 1992; Warschauer, 1995). In this field, virtual exchange has been referred to principally as telecollaboration (Belz, 2003), telecollaboration 2.0 (Guth & Helm, 2010), e-tandem (O'Rourke, 2007), or online intercultural exchange (O'Dowd, 2007; O'Dowd & Lewis, 2016). According to United States-based Partnership for 21st Century Skills, the 4Cs--critical thinking, communication skill, collaboration, creativity and innovation are the four skills needed for 21st Century students. And China also attaches much more attention to them in fostering students. Wu proposed that transnational cultural communication and comparative thinking are the core of foreign language education in China. In recent years, with the rise and popularization of information technology, a series of policy documents issued by China stresses the importance of intercultural communication ability, and foreign language educators in China have been exploring the cross-country, cross-language, and cross-cultural interactive teaching models, many of which have been put into practice.

Due to its collaborative nature, virtual exchange can help teachers improve students' participation in classes and homework, provide opportunities for students to learn in cross-cultural environments, and contribute to research and cooperation in many other fields around the world, like business and marketing. While there have been many studies about models of virtual exchanges, several important issues have not been adequately addressed. First, most of them focus on only one specific model, while not many investigations into the comparison among each model can be found in the literature, and very few review studies have been conducted. O'Dowd (2018) summarized different approaches to virtual exchange, including e-tandem, telecollaboration, collaboration online international learning (COIL), online intercultural exchange, global virtual team, and globally-networked learning environments.[1] He reviewed the recent developments and suggested future perspectives. However, there are still limitations to the study. For example, it didn't aim at the applications of virtual exchange in foreign language education and lacked an examination of the Chinese context.

Among all the models of virtual exchange, the most widely and frequently used in foreign language education are e-tandem, telecollaboration and COIL. Having developed for years, there have been a lot of studies about them. They are shown to be the most suitable and empirical models for foreign language education and have the greatest influence on this field. In e-tandem model, two speakers of different languages communicate with each other to learn the language of the other's, with a focus on their ability to learn outside of the classroom. Telecollaboration pays more attention to the intercultural aspect of foreign language education and the linguistic competence of students and tries to bring online exchanges into classroom teaching. COIL connects two classes of similar course content in different countries and lets them engage in communication and collaboration together. It emphasizes adding a collaborative and comparative perspective to the subject content by creating a 'shared syllabus' which is worked on by all participating classes(O'Dowd, 2018).

Accordingly, the purpose of the current study is to summarize the development context and current situation of these three virtual exchange models in the field of foreign language education, compare the similarities and differences between different models, find out the application scenarios, optimization, and improvement methods to promote the models, put forward specific suggestions on the existing teaching models, and improve the influence of virtual exchange through the study. This research paper is conducive to further research in this field. For frontline

teachers, researchers, or students who are not familiar with virtual exchange, this review study can help them better conduct research and practice. In what follows, previous studies on the design of different virtual exchange models in foreign language education, their common instructional contexts of them, and the influence of different virtual exchange models on foreign language skills are discussed in turn.

2 Design of Different Virtual Exchange Models in Foreign Language Education

2.1 E-tandem

E-tandem language learning dates back to 1983. In e-tandem model, two language learners with different native languages communicate with one another sharing the common objective of learning from each other. (Cziko,2004).[2] E-tandem follows the principles of reciprocity and autonomy. Both the target language and the native language are used in 50% of the process, so each of the partners can get an equal chance to practice their target language as well as provide their partner with authentic input. Partners take the role of peer tutors at the same time, and they are responsible for their own language learning and the feedback on their partners' content and their foreign language performance. At the same time, because it is based on communication between members of different language communities and cultures, it also promotes cross-cultural learning. E-tandem on the one hand provides their partner with sufficient target language input, and on the other hand, participants are "nudged" to produce target language output. E-tandem focuses on developing learners' autonomy and the ability to continue learning the language outside of the classroom. In traditional e-tandem, learning activities are often negotiated directly by learners, who are responsible for arranging and organizing interactions with partners and negotiating topics for discussion. E-tandem projects are often designed to enhance the language learning experience rather than focus on cross-cultural research; Partners are native speakers of the reciprocal target language who are interested in learning each other's language and are responsible for providing each other with feedback on language use (O'Rourke, 2013, P.434).[3]

2.2 Telecollaboration

In the late 1990s, the second model of virtual exchange in foreign language education began to appear. The term “telecollaboration” was created by Mark Warschauer(1996). Telecollaboration can be defined as gathering language learners in different countries with online communication tools to develop collaborative object work and intercultural exchange. (O’Dowd & Ritter, 2006). [4]Belz (2003) proposed that the main characteristics of foreign language telecollaboration are “institutionalized, electronically mediated intercultural communication under the guidance of a linguacultural expert (i.e., a teacher) for foreign language learning and the development of intercultural competence.”[5] It emphasizes intercultural aspects of language learning and communication and the integration of online exchanges into classroom activity. Telecollaboration has common goals including the development of intercultural communicative competence (Byram, 1997), the development of foreign language skills and competence, and the inclusion of new online literacies (Helm & Guth, 2010).[6] In telecollaboration, students can communicate synchronously with their partners through video conferencing and online chat, or collaborate asynchronously with their partners using tools such as email, social networking, discussion boards, blogs/wikis, media sharing, and authoring software. Telecollaboration can also engage students in a multi-modal learning environment where a combination of synchronous and asynchronous tools is used for communication and collaboration. Remote collaboration projects are not limited to L2 courses; They can also be implemented in traditional language courses (Blake, Zyzik, 2003) as well as teacher education programs and subjects other than foreign languages. [7] Telecollaboration brings participants from at least two social and cultural backgrounds into direct contact, it provides a special communication environment that facilitates the comparison of different ideas and cultures, and the exchange of different languages and language users.

2.3 Collaborative Online International Learning (COIL)

In the area of the shared syllabus approaches to virtual exchange, the particular approach which has become dominant is the COIL Institute for Globally Networked Learning in the Humanities. COIL was developed by Jon Robin and his colleagues at the State University of New York network of universities. (Rubin, 2016). [8] COIL connects two or more classes with similar content in different countries to enable

collaboration between two different groups of students. It is an innovation of teaching and learning. In the COIL model, students from diverse cultural backgrounds co-teach and administer coursework with faculty members from each country. COIL not only encourages students from different countries to get used to online classes but also promotes an egalitarian learning environment where teachers work together to develop a shared curriculum based on a solid academic curriculum that emphasizes experiential and collaborative student learning. The courses can be offered entirely online or in a hybrid format, with traditional face-to-face classes taking place at both schools and collaborative student work taking place online. COIL differs from other models in that it adds a collaborative and comparative perspective to subject content by creating a "shared syllabus" that all participating classes work together.

3 Common Instructional Contexts of Different Virtual Exchange Models in Foreign Language Education

3.1 Telecollaboration

Telecollaboration is often used in English for writing, reading and vocabulary courses. telecollaboration needs to be linked to offline content to form a complete learning process. When learning through telecollaboration, it is necessary to first learn the theory offline in the previous phase and use it as a basis for practice on top of the theory through telecollaboration. Both online and offline teaching needs to be changed from the traditional model for better coordination and articulation. Usually, in face-to-face teaching, students work in small groups under the leadership of the teacher, whose role is particularly important as a guide for learning, giving appropriate feedback and praise according to the students' learning. Thereafter, in the online learning phase, students and the teacher will interact via the Internet, choosing an appropriate online collaboration platform, both by editing text and by text, voice, and video, to complete the language learning tasks and practice the content topics learned offline. When designing the course, it is important to consider that the design of telecollaboration is strongly linked to the content. Adequate interaction between teachers and students is an important part of the learning process. At the same time, the learners' abilities play some influence on the design of telecollaboration as well.

3.2 E-tandem

The e-tandem model is often used for speaking courses. Both participants usually need to have some knowledge of each other's native language. In the e-tandem model, participants research the topic through online communication, answer questions at the end of the lesson, and make adjustments based on the feedback received. A number of factors influence the design of e-tandem, including the matching of expectations on both sides, time structure and student commitment (O'Dowd & Ritter, 2006), the design of the tasks (O'Dowd & Ritter, 2006; Müller-Hartmann, 2000), and the pairing of learning partners and the on-going support (Stickler, 2001; Ushioda, 2000).[9]

3.3 COIL

In previous studies, COIL has been used mostly in foreign language speaking and writing courses, as well as in the learning of intercultural knowledge. The content of COIL learning is not language-centered but rather combines language and intercultural language learning, in which language is used as the subject of communication between the two parties, intending to improve the learners' communicative competence and cultural awareness of their words. learners of COIL usually have some mastery of the target language. In foreign language learning, COIL is usually linked to offline courses in a step-by-step manner. In the initial stages, students usually build the language foundation for subsequent studies through offline learning and slowly transition to a combination of language learning and COIL, gradually shifting the focus of learning from the development of language skills to the improvement of intercultural communication skills using language as a supporting tool. Some factors influence the design of COIL programs. For example, the language level of the learners is an important factor. The type of program will also be taken into account. It is also necessary to consider the educational and learning philosophies of both parties in order to design programs that better meet the objectives of the learners.

4 Influence of Different Virtual Exchange Models in Foreign Language Education

Virtual exchange has made differences in the participants in mainly the following three aspects.

4.1 Language Proficiency and Cross-Cultural Communication Skills

The most direct effect of virtual exchange on participants is language proficiency. While traditional methods of learning a foreign language usually focus on the accurate use of grammar, virtual exchange is a major shift. More than half of the participants reported that they had improved their listening, speaking, reading, and writing skills after taking part in virtual exchange. In terms of cross-cultural communication, participants' attention shifted away from traditional interpretations of cultural learning, and instead, saw how language, culture, and media interact in online cross-cultural communication. Participants also become more open and curious about cultural differences themselves and are more likely to overcome stereotypes in cross-cultural communication. The use of virtual exchange helps learners develop cross-cultural awareness by communicating with people from the target culture and working together to accomplish tasks or goals, triggering critical thinking in participants, and promoting both learning about the target culture and improving learners' awareness of their own culture and therefore helping them gain a deeper understanding of cultural diversity.

4.2 Emotion

In addition to the improvement in language proficiency and cross-cultural communication skills, the participants' emotions changed accordingly after the use of virtual exchange. In many studies, participants reported a significant change in confidence and felt more comfortable using the second language. Most participants felt more confident in communicating in the second language, and their attitudes toward the second language have been much more positive (Darhower, 2008), with a renewed sense of language as a communicative, a social activity, and a communication tool rather than an abstract, text-based academic activity.[10] After interacting with and learning from native speakers of the language they are learning, participants gradually overcome their previous anxieties, and their progress in knowledge and skills make them more willing to engage in communication and express themselves. (Rets, Rienties & Lewis, 2018)

4.3 learning Methods

The study found that the majority of virtual exchange participants made progress in areas such as language proficiency after active learning, as well as improved and adapted learning methods. Unlike learning through offline courses alone, virtual exchange offers new possibilities for learners' approaches to learning. By balancing synchronous online learning interactions with asynchronous textual interactions, learners establish a good working relationship while performing learning tasks and thus achieve better learning outcomes. Virtual exchange provides learners with a great supplemental educational resource, and they can collaborate and discuss learning content through this technology.

5 Conclusions

5.1 Major Findings

virtual exchange is a relatively new form of foreign language education, especially in China, and even though it has achieved a lot, there is still a lot of room for improvement. virtual exchange has many models, but the mainstream of use is still e-tandem, telecollaboration, and virtual exchange. COIL, which has been developed for a relatively long time or is more experienced. E-tandem, as one of the first models, has been relatively well-researched. Compared to intercultural communication skills, e-tandem focuses more on the experience of language learning, emphasizes the improvement of language skills among learners, and focuses more on the development of students' ability to learn the language independently outside of the classroom. And telecollaboration has made some innovations and developments on this basis. COIL is different in that it offers students from different cultural backgrounds the opportunity to communicate and learn together, while its unique "shared curriculum" provides a different perspective.

Depending on the characteristics and focus of the different models, the scenarios in which they can be applied in foreign language education are also different, whether it is the language level of the students, the type of course, or the transition and connection with regular offline courses, which also influence the design of these models and the adaptation and adjustment to different types of courses.

When it comes to the impact of the introduction of virtual exchange on the participants in foreign language education, we can see that there are many additional

effects besides the basic improvement of language proficiency. For example, the intercultural skills of the participants are trained through communication with native speakers of the target language, and their state of mind changes accordingly, such as more confidence and interest in learning the language. virtual exchange also refreshes the way participants learn. Both the roles they play in learning, their attitudes toward learning, and the platforms for learning have changed with the integration of these models. The availability of learning resources on the Internet is also one of the benefits that virtual exchange offers.

5.2 Limitations

There are still some shortcomings in this study. For example, in this thesis, only three models of virtual exchange used in foreign language education are selected, and there are still some models that can be applied to this field that we need to analyze and discuss. In the third part of the study on the impact of virtual exchange, we focused on students' language skills and affective values, while some aspects, such as digital literacy, were not carefully explored. In the future, we still need to conduct more detailed research to provide references and help more studies to improve the development of virtual exchange in the field of foreign language teaching.

5.3 Implications of the Study

The research in this paper has some reference significance for the continuous development of virtual exchange.

First, the research in this paper allows us to understand the current status of the development of virtual exchange, the main problems encountered, the background and methods of research, and to follow up on the latest breakthroughs in its research, which is of great significance for its continuous improvement.

Second, since most of the previous studies have been conducted on only one model or one skill, there are few review studies on virtual exchange. For front-line teachers, researchers or students who are not aware of the research and practice related to virtual exchange, the review study in this thesis can provide some reference and guidance, which will help them better grasp the current development of virtual exchange and help them better conduct further research and carry out practice.

At the same time, through the summary and investigation of this study, we can better understand the current needs of foreign language education and adjust the optimization and development direction of virtual exchange accordingly, so that it can achieve higher efficiency and return rate in this field, hoping that through the integration of virtual exchange in foreign language education, we can continuously improve the level of foreign language education in China and make it achieve more significant results and breakthroughs. We hope that by incorporating virtual exchange in foreign language education, we will continue to improve the level of foreign language education in China and make more significant achievements and breakthroughs.

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