A Case Study on the Cultivation and Sustainability of Knowledge Sharing and Digital Trust: A COIL Project with Mexican and Turkish University Students

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ABSTRACT

The educational settings in the 21st century are characterized by an emphasis on the development of skills such as communication, collaboration, and critical thinking and technology integration. Telecollaboration has recently been a widely adopted educational practice where learners are engaged in developing the aforementioned skills via online intercultural interaction in collaboration with their peers on an international level under the supervision of facilitators and/or instructors as an integral part of the instruction (Lewis & O'Dowd, 2016; O'Dowd, 2016). Over the past decades, telecollaboration has been referred to as online intercultural exchange (O'Dowd, 2007) or virtual exchange (VE) (Helm, 2016).

Introduction

Collaborative Online International Learning (COIL) is a more comprehensive form of VE. According to SUNY (State University of New York) COIL Center (Rubin, 2016). COIL is considered to foster the intercultural competence development in multicultural learning environments via exchanges between the faculty members as well as students from physically different locations and with different linguistic and cultural backgrounds. In COIL projects instructors work collaboratively as a team in a remote fashion to create a common syllabus focusing on student-centered, experiential and collaborative learning. In these projects, participants form online communities of practice. Nowadays COIL projects are increasingly integrated into the pre-service teacher education programs. The membership of an online professional community of practice enables students, as well as teachers and teacher candidates, to be engaged in an exchange of ideas, experiences and resources (Chen et al., 2009; Hur & Brush, 2009).

Engagement in online communities bring multiple benefits to the community members such as the following: A reduction in the feelings of isolation (Duncan-Howell, 2010; Gray, 2004), an accelerated rate of informal knowledge sharing in temporal and spatial terms (Duncan-Howell, 2010; Young & Tseng, 2008), and new knowledge construction (Wang et al., 2008). These online professional learning communities can also "provide … personal learning opportunities for educators within and across schools, … preservice preparation and in-service education institutions and professional organizations" (U.S. Department of Education's National Education Technology Plan, 2010. p.xviii). Despite the great promise online communities of practice hold for successful knowledge sharing and online communication/exchange of ideas, establishing a virtual platform and expecting pre-service teachers or teacher educators to be engaged in a smooth and spontanenous interaction with a nice flow of ideas are likely to be quite challenging (Ardichvili, 2008; Chiu et al., 2006; Fang & Chiu, 2010).

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Without a strong bond or well-developed interpersonal relationships/a strong sense of interdependence between the group members (i.e., a sense of community), who display committment to a common goal/goals (i.e., a sense of group ownership), online communities are not likely to succeed. In fact, trust is acknowledged to foster knowledge sharing in online communities (Ardichvill, 2008; Chiu et al., 2006; Usuro, et al., 2007; Young & Tseng, 2008). Knowledge sharing in the study is described as a communication process where one or more individuals are involved in the provision and acquisition of knowledge (Usuro et al., 2007). Trust plays an important role in the establishment of cohesion in such communities, leading to the maintenance of interaction and quality knowledge sharing (Hoy & Tschannen-Moran, 1999; Usuro et al., 2007). It is also the key element in the creation of a safe learning environment for a virtual exchange community, which is considered an online community of practice. In the study trust is defined as a multifaceted concept that incorporates one party's readiness to take the risk of being vulnerable, given the other party's benevolence, reliability, competence, honesty and openness (Hoy & Tschannen-Moran, 1999). Building trust among virtual exchange/COIL project participants is the sine qua non of good group dynamics and a strong affective bond and team spirit among participants, playing a vital role in the effectiveness of the virtual exchange.

Although the extant virtual exchange research literature seemed to focus on the benefits and challenges of virtual exchange programs/projects as well the participants' perceptions of the impact of such research on their personal and professional development and task design, the impact of virtual exchange programs/projects on the cultivation and development of digital trust is still underexplored. In fact, there is a paucity of research on online communities of practice (e.g., Booth, 2012). Also, to the best of the researcher's knowledge, there has been no study focusing on the investigation of how knowledge sharing and trust are cultivated and developed by online communities in the virtual exchange contexts (See Booth, 2012). Hence, the current qualitative case study investigated how knowledge and trust are cultivated and sustained in an online community of practice in a COIL project that are composed of Mexican and Turkish undergraduate students in the fall semester of the 2020 and 2021 academic year. 41 EFL pre-service teachers of English as a Foreign Language (EFL) from an English-medium urban state university from Turkey and 35 Mexican university students from different departments at an urban state university from Mexico participated in the study. The Turkish students were between 20 and 40 while the Mexican students were between 20 to 27. The exchange is embedded in an elective course called 'Language and Culture' at the Turkish university while it was embedded into a must course called 'International Competences 1'. The participation in the project was on a voluntary basis for students in both groups.

Regarding the theoretical framework in the study, Wenger's (1998) social theory of learning and the communities of practice (COP) (Lave & Wenger, 1991; Wenger (1998) were adopted as the theoretical frameworks in the study. Wenger's theory of learning, which is accordance with Vygotsky's (1978) theory of sociocultural cognitive development, advocates constructing knowledge via interpersonal interactions. Exploring knowledge sharing and trust from the perspective of social learning theory highlights the intricate nature of learning in a virtual social space (Booth, 2012). In the study, COPs are defined as groups of people who work in colllaboration to achieve common goals and solve problems, share best practices, provide support

for one another and develop their knowledge and expertise in a topic they are interested in via ongoing interaction (Lave & Wenger, 1991; Wenger et al., 2002). Online communities generate an alternative social space for collaborative learning irrespective of temporal and spatial boundaries (Booth, 2012).

As the study addresses the way(s) knowledge and trust are cultivated and maintained in the online learning environment of the COIL project, the selection of the information-rich cases was of great importance for the researcher. Therefore, a purposeful sampling strategy was employed in the participant selection. The in-depth online focus group interviews with the participants, reflective journals, as well as the document analysis (the participants' task-related posts on the closed project Facebook group) were used in the data collection. The qualitative case study was adopted as the research design in the study (Yin, 2009). The study lasted 6 weeks in the fall semester of the 2020 and 2021 academic year. The data were collected via asynchronous tasks posted on the closed project Facebook group (participants' individual or group activity reflection posts, peer comments, as well as their final individual and group reflections at the end of the project), and synchronous Zoom meetings with both groups. A three-layered task design was employed in the study: information exchange, comparison and analysis, and collaboration (O'Dowd & Ware, 2009), which was found to foster the cultivation and sustainability of trust among participants via knowledge sharing.

Methodology

The data analysis was conducted via content analysis. In order to ensure the relability of the analysis, a departmental colleague who were experienced in qualitative data analysis collaborated with the researcher, who was also the course instructor of one of the project groups during the data analysis stage. Member checking and data triangulation were used to strengthen the validity of the qualitative data analysis in the study. The findings indicated the interrelated nature of knowledge sharing and trust in the online communities of practice in the COIL project. Regarding the cultivation of knowledge sharing in the project, the three-layered task design in the project providing opportunities for the participants to be engaged in structured informal and task-related as well as collaborative interactions in a variety of task was found conducive to knowledge sharing among the participants as members of online communities of practice. The study also pointed out that the incorporation of ice-breaking activities in small groups and as a whole community via synchronous Zoom sessions in the initial stages of the project also promoted knowledge sharing in the online communities of practice in the COIL project, paving the way for the development of trust among the participants by helping build a sense of community. In addition, the utilization of a closed Facebook group as the online project platform was reported to foster safe learning and knowledge sharing, contributing to building trust among the COIL project participants. In relation to the sustainability of knowledge sharing, the study revealed that along with the use of closed Facebook group as an online exchange platform, sharing personal cultural experiences and exchanging intercultural experiences via various Web 2.0 tools and applications in the project and encouraging peer commenting sustained knowledge sharing in the online project community were found effective design features by the participants These practices also promoted a growing sense of trust

throughout the project, which also fostered openness, one of the main facets of trust building (Tschannen-Moran & Hoy, 2000).

Results

With respect to the sustainability of knowledge sharing. the study also demonstrated that the incorporation of a structured synchronous Zoom session had a favourable impact on the sustainend knowledge sharing in the online communities in the project. In this session, participants were encouraged to engage in a focused online discussion on hot, critical issues, and cultural stereotypes in their countries in breakout rooms and to raise their intercultural sensitivity and awareness, which promoted the emergence of multiple perspectives, and creation of a shared context for the ongoing online exchange flow.

In relation to the cultivation of trust in the COIL project, the findings indicated that trust flourished in the online communities of virtual exchange through the collaborative work in small groups focusing on a common goal (i.e., preparing an online magazine on one of the United Nation's sustainable developmental goals). The collaborative work engagement also helped the participants develop a collective identity. Also, the group members' structured task-related interactions around a common goal led to the emergence of a sense of trust among the group members eventually. In addition, assuming different roles in these task-related interactions through which participants display their expertise and uniqueness in the online community context to achieve a common goal helps them develop a sense of competence in a task-related knowledge domain which, in turn, facilitates the cultivation of trust in the group. Also the collaborative engagement geared towards a common goal augmented their sense of ownership in the project, enhancing their trust in the members of the online communities of practice. Closely related to their sense of project ownership, the participants' commitment to the project, their sense of responsibility and their willingness to communicate when intra-group conflicts arose also affected the cultivation of trust positively.

Acting as moderators, the course instructors contributed to cultivating and sustaining a trusting learning environment in the project by acting in a competent, credible and reliable manner in the following ways: by designing diverse and graded tasks, providing constructive and timely feedback for participants regarding their tasks, posting tasks on Facebook regularly, showing acknowledgement concerning the participants' posts on Facebook, responding to participants' mails promptly, allowing them to ask questions for clarity as well as being mediators in conflict resolution. In general, the establishment of an active student-centered learning environment embracing diversity based on mutual understanding, tolerance and respect contributed to the knowledge sharing and trust formation among the participants in the online community, addressing the benevolence aspect of building trust.

The study provides a clearer picture of how online communities function as social learning spaces (Booth, 2012). It also underlines the subjective and context-dependent nature of trust (See Rousseau, et al., 1998). In addition, it emphasizes the salient role trust plays in knowledge sharing in online communities (Booth, 2012). Based on the findings regarding the cultivation and development of of trust In the oral presentation, the implications for practice will be provided.

Limitations

Although the limited number of sample size and the relatively short duration of the study rendered it hard to generalize the findings, the study can be considered to provide a road map for the novice virtual exchange practitioners who seek to establish and deepen knowledge sharing and trust among the members of their online communities of practice as well as virtual exchange researchers who explore the strategies to cultivate and develop digital trust on an intercultural level. Future research may involve the further investigation of the role of structured exchanges and interactions as well as the task design in cultivating trust and fostering knowledge-sharing in online communities in the intercultural atmosphere of virtual exchange projects. Additional research might also be needed to explore the role(s) of virtual exchange practitioners in the online communities (e.g., as mentors and leaders). The contribution of active and inactive virtual exchange community members to the cultivation and sustainability of trust might be regarded as other promising areas.

Keywords: knowledge sharing, trust, digital, online communities of practice, Collaborative Online International Learning (COIL) projects/virtual exchange, interculturality, context-dependent, social learning theory

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