The Importance of CoP in Transforming New Learning Communities into Experienced Ones in EFL Classrooms

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Abstract

Since the Communities of Practice (CoP) concept has been adopted in various learning environments, visualizing its development in English as a foreign language (EFL) classrooms is complicated. Thus, based on the CoP concept, this study investigates the changes in learners' degrees of participation and CoP elements in EFL writing/reading classes when the systemic functional linguistics genre-based approach to language learning is introduced over a 15-week period. The participants included 58 undergraduate students at various proficiency levels from three different classrooms. Developmental changes in the students and their communities were examined by conducting pre-, mid-, and post-quantitative analyses of 10 CoP elements, including three key modules: mutual engagement, joint enterprise, and shared repertoire. Three elements showed no similar developmental patterns, whereas two CoP components (mutual engagement and shared repertoire) indicated similar patterns in one classroom where their activities began with moderate awareness, gradually increasing toward the end of the semester. Among the three classrooms, only one CoP component (i.e., shared repertoire) showed a similar developmental pattern. The results imply that the features involving human relationship expansion, including the frequency of contact and the ease in asking for help from other members, called "Mutual Engagement," grow during the early or middle stages. Features such as "Joint Enterprise" and "Shared Repertoire"– dealing with understanding other members' knowledge and understanding jargon – start developing in the latter stages. This study implies that understanding the concept of CoP can help teachers clarify learners' behaviors in classroom communities, which can lead to major developments in learning.

Keywords: Communities of Practice; genre-based approach to language learning; systemic functional linguistics; five stages of CoP development

Introduction

In recent years, the Communities of Practice (CoPs) concept has been extensively researched, and it has proven to be worthwhile, thus motivating investments in the business world. According to Ribeiro (2011, p. 28), "communities of practice (Brown & Duguid, 1991; Lave & Wenger, 1991; Wenger, 1998; Wenger et al., 2002) are models of the creation and distribution of knowledge based on practice." When CoPs are successfully established, they can increase members' satisfaction with their working arrangements and promote a strong, passionate working community (Ribeiro, 2011). Wenger's (1991) concept of CoPs can be summarized as "groups of people who share a concern, a set of problems or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002). However, Haneda (2006) claimed that Lave and Wenger (1991) did not closely examine the concept. Lave and Wenger (1999) created this concept wherein novices become experienced in CoPs through their interaction with other members. This has been examined only on an informal basis in the EFL writing classroom-based communities (Haneda, 2006). Therefore, one of the challenges faced by the investigator was to elaborate on the application of the concept of CoPs in the context of the EFL classroom.

Since the 1990s, studies have also been conducted on the activity patterns and structures of CoPs across various fields, particularly in different arenas (Koga, Furuya & Miyo, 2015; Kanamitsu, 2009; Lippman & Elliot, 2004; Ribeiro, 2011). However, it is difficult to clarify the overall picture of CoPs in language learning classrooms since limited studies have focused on the components and activity patterns in such communities (Ribeiro, 2011). In other words, although the Community of Practice (CoP) concept is essential for establishing successful institutions, CoP potential and function in English as foreign language (EFL) classrooms have yet to be clarified. Thus, it is necessary to explore the appropriate features of CoPs in classrooms to expand the concept from the original one proposed by Lave and Wenger (1991). In addition, from a CoP perspective, identifying their features can help determine how learners visualize the process of collaborative learning and create new knowledge in such communities (Cambridge, Kaplan, & Suter, 2005).

In the present study, the research question focuses on what temporal nurturing features of CoPs are embedded in classroom contexts and how these features develop and function. For this purpose, this study examined the nature of engagement in three different Japanese EFL classrooms using questionnaires based on Wenger's (1998) observations and by performing case studies at the beginning, middle, and end of a 15-week course. The responses to the questionnaires were analyzed to learn more about CoP activity patterns and functions as well as learners' behaviors in classroom communities. As a result, three CoP features were identified (i.e., expansion of human relationships, distributed cognition, and understanding of technical knowledge), and the transformation from new to experienced classroom communities was demonstrated. In addition, the five stages of CoP development, as defined by Wenger et al. (2002), served as the criteria for the three classrooms. Overall, this study demonstrated how EFL classrooms can be mediated by genre learning within the CoP framework. The implication of this study is that understanding CoPs can help teachers clarify learners' behaviors in classroom communities, which can lead to major developments in learning. The following section presents a literature review regarding the relationship between CoPs and conceptual challenges for learners.

Theoretical Framework: Review of Related Research

Defining Community

In general, a community helps create social bonds among individuals and influences internal personal factors (Bredekamp & Rosegrant, 1992; Rovai & Ponton, 2005). Lave and Wenger (1991) defined a "community" as a group in which learners, as participants and community members, can acquire skills and knowledge from one another while participating in activities together. Such situations are also referred to as a CoP. During the past two decades, second-language researchers and researchers studying the practice of teaching English to speakers of other languages (TESOL) have focused an increasing amount of attention on the role of the sense of community in classrooms. Although some features of classroom communities have been identified, such as participants' commitments to goals, cooperation among members, and attitudes toward learning (Rovai & Ponton, 2005), an understanding of how a sense of community can be created and applied in classroom settings has yet to be determined.

Defining a CoP

A CoP includes environments and conditions that allow participants to acquire skills and knowledge through their involvement in the community's activities (Lave & Wenger, 1991). Overall, there are three characteristics of CoP domain, community, and practice. In this regard, domain refers to the participants' commitment to the community based on common goals and mutual interests (Wenger-Trayner & Wenger-Trayner, 2015). Moreover, there are three key components of CoP mutual engagement, joint enterprise, and shared repertoire. The first component, mutual engagement, represents interactions between individuals (Li, Grimshaw, Nielsen, Judd, Coyte, & Graham, 2009), which are important since such interactions help the participants understand the expectations in the community (Li et al., 2009). With regard to the second component, although the participants have their own purposes and goals, they compromise in order to participate in the cooperative activities. This collective process is referred to as a joint enterprise (Li et al., 2009). Regarding the third component, shared repertoire, the common resources of meaning-making are established through the participants' mutual engagement with other members in the community. Such resources, which are created and accepted by the participants, include routines, used languages, non-verbal communication, genres, actions, and related concepts (Li et al., 2009).

The necessity of cooperative participation in every type of organization has increased, and in this regard, Cambridge, Kaplan, and Suter (2005) identified eight features of a CoP: (1) understanding how participants connect; (2) sharing individual information and stories; (3) interacting with peers to resolve issues and find new possibilities; (4) stimulating participants' learning; (5) allowing participants to gain and share knowledge; (6) visualizing the process of collaborative learning; (7) clarifying the schematization of people's behaviors in the community; and (8) creating new knowledge. Thus, understanding the features and activity patterns of CoPs can provide insights into how the participants and the communities themselves develop. However, although this understanding of the sense of CoPs has been adopted in various communities and studies, Lave (1991) and Ribeiro (2013) stated that visualizing the CoP concept in classrooms and identifying its activity patterns can be difficult.

Wenger et al. (2002) stated that there are five sections in the development of CoPs: (1) potential; (2) coalescing; (3) maturing; (4) stewardship; and (5) transformation. The first

stage, potential, occurs when community participants cultivate a social network and identify their enthusiasm for the same topic or goal, the tools for carrying out the objective, and common values (Wenger et al., 2002). The second stage, coalescing, occurs when the existing and aimed-for knowledge about the community is combined (Wenger et al., 2002). The third stage, maturing, occurs when the participants attempt to understand the common goals, objectives, roles, and boundaries of the community after building their relationships and identifying the values (Wenger et al., 2002). The fourth stage, stewardship, occurs when the participants accelerate their levels of mastery by facing challenges related to the practices, personnel, technology, and relationships in the organization (Wenger et al., 2002). The fifth and final stage, transformation, occurs when the participants in the community lose their sense of ownership regarding common goals, practices, and participation (Wenger et al., 2002).

Previous Research and CoP Indicators

Wenger (1998) listed 14 CoP elements as indicators (Wenger, 1998b, pp. 125–126), after which Murillo (2011) divided the elements into the three dimensions stated earlier (i.e., mutual engagement, joint enterprise, and shared repertoire). Subsequently, Ribeiro (2012) examined how the employees of one company formed a CoP by applying Wenger's 14 elements (Wenger, 1998) (see Appendix) and conducting three semi-structured interviews with seven participants**.**

The CoP concept has also been widely used in academic pedagogical contexts. For example, Kapucu (2012, p. 586) created a single CoP consisting of graduate students and found that learning occurred when they participated in activities and interacted with other members. In addition, Tapp (2013, p. 347) applied the CoP concept as the theoretical framework in higher education to observe the transformations of novice learners, their activities in classroom communities, and their understanding of academic literacy and identity. The findings indicated that learners with clear goals generally have a positive outlook regarding literary tasks and activities (Tapp, 2013, p. 350), which is one of the features of a CoP. However, although previous CoP research focused on English as a second language (ESL), EFL, and TESOL classes, and classroom communities in higher education, the majority only examined situated learning, collaborative learning, cooperative learning, academic (discourse) socialization, and learner independence (Guo & Lin, 2016; Keuk, 2015; Van Benthuysen, 2007; Zappa-Hollman & Duff, 2015). In addition, limited studies have focused on CoP activity patterns and how these features are transformed, with few studies examining the particular EFL classroom environments in Korea, China, and Japan (Koga, Furuya, & Miyo, 2014).

In sum, CoPs gathers people with diverse interests and a common understanding of the meanings, goals, and roles of certain activities, after which the participants collaborate to implement them (Lave & Wenger, 1991; Sugihara, 2006). Moreover, identifying the features of CoPs can provide an understanding of how participants connect with one another and how their behaviors affect a particular community (Cambridge, Kaplan, & Suter, 2005). Although the concepts of Lave and Wenger (1991) and Wenger, McDermott, and Snyder (2002) may be applicable to any type of community (Wenger et al., 2002), clarifying the overall picture can be difficult since few studies have focused on the process of creation and development, the components of CoPs and their activity patterns in pedagogical communities (Ribeiro, 2011, p. 3). With reference to the aforementioned literature review, the following research questions are addressed:

(1) How do the three dimensions of mutual engagement, shared repertoire, and joint enterprise change over time in a single EFL classroom?
(2) What are common CoP activity patterns among the three different classrooms?
(3) How do these EFL classrooms develop from new learning communities into experienced ones?

Teaching Framework

Systemic Functional Linguistics (SFL) genre-based pedagogy as the teaching framework

In light of the teaching framework and in reference to Halliday's (1994) Systemic Functional Linguistics (SFL) and Martin's (2001, 2009) genre-based approach to language learning, the present study developed a 15-week EFL course for undergraduates in business administration and international studies at two different Japanese universities. With regard to SFL, "systemic" means that speakers and writers make meaningful choices in language without thinking about a particular structure, while "functional" refers to viewing texts as a whole to implement certain social functions, such as establishing social relations and conveying information (O'Donnell, 2011, pp. 4–5).

Overall, the concepts of SFL and CoPs share some similar features. First, the SFL approach determines how language is used in social contexts to accomplish particular goals (O'Donnell, 2011, p. 2). This concept, which is similar to that of CoPs, is that language and social contexts have a strong relationship, and language users should focus on meaning when they speak and write texts (Halliday & Matthiessen, 2004). Second, the genre-based approach to language learning focuses on the purpose of participating in social activities (Wu & Dong, 2009) and understanding cultural contexts (Wu & Dong, 2009, pp. 77–78). This is similar to the concept of CoPs in which participants generally have the common goal of sharing and solving problems to become more experienced (Lave & Wenger, 1991).

In the present study, genre is defined as the events in participants' communities that have particular purposes, settings, structures, and communicative functions (Flowerdew, 2013). In other words, the participants in these events share similar social purposes (Chaisiri, 2010). With regard to SFL, its main focus is on the social and cultural roles of language (Coffin, 2001, p. 41, p. 94) and how it can empower users to learn a language proficiently and convey different meanings in different social situations (Wu & Dong, 2009, p. 77). Furthermore, the SFL genre-based approach of language learning has become an effective analytical tool that allows learners to increase their awareness of two particular aspects: schematic structures and inner structures (Wu & Dong, 2009, p. 78). According to Humphrey (1996, p. 9), "When students learn to write using a functional model, they learn about the range of language resources available and the effects that can be created by using different resources. They will, therefore, be much more able to create texts which are effective in different situations."

In this study, a 15-week course was created based on the Teaching and Learning Cycle by Feez (1998) and Rothery (1996), which is a systematic approach that allows learners to engage with and create texts. The scaffolding approach is also embedded into this teaching and learning process (Chaisiri, 2010), which has five stages: (1) building the context; (2) modeling the target genre texts; (3) joint construction of the text; (4) independent construction of the text; and (5) linking related texts. This learning cycle, including the

various stages, was presented three times during the 15-week course. For example, during the first week, the second stage (i.e., modeling the target genre texts) was explained during the first 30 minutes, after which the learners participated in the fourth stage (i.e., independent construction of the text) in the remaining 60 minutes.

During the 15-week course, group and classroom discussions were conducted, and the learners performed a significant number of peer and group tasks as well as genre analyses. At the end of the course, the learners were asked to write self-reflection essays regarding their participation. Overall, using Feez's (1998) Teaching and Learning Cycle allowed the learners to gradually understand the structures of particular genre texts and the uses of their language features. This process also supported the interactions between the learners, which reinforced their shared experiences (Rose & Martin, 2012, p. 58). Finally, this particular cycle allowed the teachers to systematically present the texts, after which the learners could gradually increase their meaning-making capacity (Humphrey, Chen, & Macnaught, 2015).

Method

Participants

The participants in this study consisted of 58 first-year students (N = 58) in the first semester of the 2014 or 2016 academic year in Japan. Classroom G at University A (CoP G [n = 27]) was comprised of business administration majors in the lower language-proficiency level, whereas Classrooms I (CoP I [n = 17]) and J (CoP J [n = 14]) at University B consisted of international studies majors in a higher language-proficiency level. The participants' placement into either the higher or lower language-proficiency level was based on their scores on the Test of English as a Foreign Language (TOEFL), which served as the school placement examination. In this study, the higher language-proficiency group's average TOEFL score was between 480 and 511, while the lower language-proficiency group's average score was 443.

To determine the learners' prior writing and genre experiences, a background survey was administered at the beginning of the first semester (see Table 1). The survey items were based on previous genre writing studies. The results indicated that five percent of the learners in CoP G had performed genre analyses of peer essays in the past. However, none of them had experienced the genre-based approach in their high school writing and reading classes. In CoP I, five percent of the learners had previously performed peer essay analyses, while three percent had experience in genre-based language learning in high school. In CoP J, seven percent of the learners had performed peer essay analyses in the past, while 14 percent had experience in genre-based language learning in high school. Thus, since the majority of the learners had similar EFL writing experiences (with limited exposure to genre-based language learning), the participants were considered novice learners in genre-based language learning. In addition, according to the background survey, one or two learners in each classroom had previously performed peer essay analyses. However, their reviews only focused on grammatical errors instead of understanding genre structure. Hence, the participants were also considered novice learners with regard to this aspect.

Table 1: Learners' Background Information.

	Communities of Practices		
	G	I	J
N	27	17	14
F	9	12	9
M	18	3	5
Faculties	Business Administration	International Studies	International Studies
TOEFL score (M)	443	511	480
Experience of study abroad in the past	70	67	7
Study abroad in the future	80	95	90
Say they like to study English	75	100	93
Lesson numbers	5	8	8
Translation	45	31	93
Paragraph writing	17	15	7
Peer essay analysis	5	5	7
Genre approach-based language learning	0	3	14

Note: In questions (1) to (4) the numbers are in percentages. Questions (5) to (8) are related to the EFL learners' prior learning and writing experiences in their classrooms at their high schools and the numbers are in percentages.

Finally, at the beginning of the 15-week course, all the participants were informed of the purpose of the study, after which their written consent was obtained on the information sheet (written in both Japanese and English). They were also informed that the collected data was anonymous, that they were allowed to withdraw from the study at any time, and that their answers would not have any effect on their grades.

Data Source

Surveys

To obtain in-depth qualitative insight into the transformations of the CoP elements in each EFL classroom, pre-, mid-, and post-quantitative analyses were conducted. In the present study, 11 question items were adopted from Ribeiro's (2011) interview items, which were based on Wenger's 14 components. The responses to the questionnaire (based on a five-point Likert scale) were collected online at three different times (i.e., beginning, middle, and end) during the 15-week course (see Table 2), after which comparisons regarding the highest frequency of the items were made. All the participants took approximately 10 to 15 minutes to answer the questions. Overall, the Cronbach's alpha coefficients were as follows: CoP G: first time $\alpha = 0.82$, second time $\alpha = 0.77$, and third time $\alpha = 0.75$; CoP I: first time $\alpha = 0.83$, second time $\alpha = 0.82$, and third time $\alpha = 0.72$; and CoP J: first time $\alpha = 0.75$, second time $\alpha = 0.73$, and third time $\alpha = 0.84$.

Table 2: Data collection.

	1st time	2nd time	3rd time
Classroom G	5/12/2014 (Week 4)	6/2/2014 (Week 7)	7/15/2014 (Week15)
Classroom I	4/11/2016 (Week 1)	5/30/2016 (Week 7)	7/11/2016 (Week15)
Classroom J	4/15/2016 (Week 1)	6/3/2016 (Week 7)	7/15/2016 (Week15)

Data Analysis

Six (Q1, Q2, Q3, Q8, Q10, and Q6) of the 11 questions were chosen for this particular study. The remaining items were not used since they were not applicable to the research questions. The survey data collected in Week 1 (or Week 4), Week 7, and Week 15 were compared. To analyze the learners' awareness and understanding of CoP features longitudinally, the highest frequency for each item was analyzed (see Tables 4 and 6). In these tables, the label "Low" means the learners chose "5 – Never" the most, while "Middle" means the learners selected "3 – Sometimes" the most, and "High" indicates that "1 – Always" was the most frequent answer.

Results and Discussion

Phase 1

To investigate research question (1) (i.e., How do the three dimensions of mutual engagement, shared repertoire, and joint enterprise change over time in a single EFL classroom?), similar patterns of activity development within one classroom community (CoP I) were examined during this phase. For an in-depth understanding of the activity patterns and the transformation of CoP elements, CoP I was the subject of focus (see Tables 3 and Table 4). Overall, the various features of this classroom developed at different times during the research period. More specifically, the elements of mutual engagement and shared repertoire demonstrated similar developmental patterns. In addition, the responses to Q1 (i.e., "Do you frequently get in contact with classmates?") showed that at the midpoint, a plurality of the students selected "3: I get in contact with particular people" (33%, n = 5). However, by the final stage, a plurality of the students selected "1: I get in contact very frequently" (33%, n = 5). This question represented the CoP feature of mutual engagement.

Both Q3 and Q8 were related to the CoP element of shared repertoire. The results of Q3 ("Do you share information with classmates?") showed a similar developmental pattern to that of Q1. For CoP I, in Week 1, a plurality (40%, n = 6) of the students selected "3: I share information occasionally," which was similar to Week 7 (33%, n = 5). In Weeks 1 and 7, the least-selected items were "1: I share information quickly" and "5: I never share information." However, the response patterns in Week 15 diverged since the majority of the students selected "2: I share information somewhat quickly" (60%, n = 9), while the second-most selected response was Item 1 (33%, n = 5). Moreover, the percentage of the students who selected "5: I never share information" was 13% (n = 2) in Week 1, whereas it was 0% in Week 7. Regarding Q8 ("Do you remember any shared goals or tools that you used with the members of your class?"), there was a similar developmental pattern. Overall, the results suggest that early in the research period, many of the learners either chose "3: I can recall several semiotic resources" (47%, n = 7) or had no understanding of semiotic resources (27 %, n = 4), and this trend persisted until the middle stage of the research period. Thus, the

understanding among the students about shared goals and tools apparently developed from the middle to the latter stages of the research period.

Table 3: CoP I: Frequency of response (in %), means, standard deviations, and learners' understanding of CoP features (n = 17).

Dimensions	Questions	M	SD	Week	1 Always	2 Usually	3 Sometimes	4 Rarely	5 Never
Mutual Engagement	1. Do you have a constant relationship with your classmates?	3.47	1.17	1	7% (1)	13 % (2)	33% (5)	20 % (3)	25% (4)
		2.84	1.06	7	7 % (1)	20% (3)	46 % (7)	27% (4)	0% (0)
		2.20	1.08	15	33% (5)	20 % (3)	27 % (4)	20% (3)	0 % (0)
Shared Repertoire	2. When you have a problem, do you ask a classmate for help?	1.58	1.17	1	67 % (10)	20 % (3)	0% (0)	6.5 % (1)	6.5% (1)
		1.76	1.01	7	53% (8)	27% (4)	13 % (2)	7 % (1)	0% (0)
		1.13	0.35	15	87% (13)	13% (2)	0% (0)	0% (0)	0% (0)
	3. Is information propagated quickly?	2.94	1.14	1	14% (2)	20% (3)	40% (6)	13% (2)	13 % (2)
		2.15	1.14	7	27 % (4)	27% (4)	33% (5)	13% (2)	0% (0)
		1.66	0.61	15	33 % (5)	60% (9)	7% (1)	0 % (0)	0% (0)
	8. Do you remember any shared goals or tools that you used with the members of your class?	3.41	1.06	1	0% (0)	13 % (2)	47% (7)	13% (2)	27 % (4)
		2.30	0.72	7	7 % (1)	33% (5)	53% (8)	7 % (1)	0% (0)
		1.86	0.74	15	40% (6)	40 % (6)	20 % (3)	0% (0)	0% (0)
	10. Do you know any jargon or shortcut shared with your classmates?	4.17	0.88	1	0 % (0)	7% (1)	7 % (1)	46 % (7)	40% (6)
		2.61	0.75	7	7 % (1)	13% (2)	67 % (10)	13 (2)	0% (0)
		2.46	0.74	15	13% (2)	34 % (5)	53% (8)	0 % (0)	0 % (0)
Joint Enterprise	6. Do you know your classmates' skills and how can these be used to achieve a common goal/task?	4.23	1.14	1	0 % (0)	13% (2)	20% (3)	0% (0)	67 % (10)
		2.53	0.48	7	0 % (0)	67% (10)	27% (4)	0 % (0)	6 % (1)
		1.93	0.73	15	20 %(3)	73% (11)	0 % (0)	7 % (1)	0% (0)

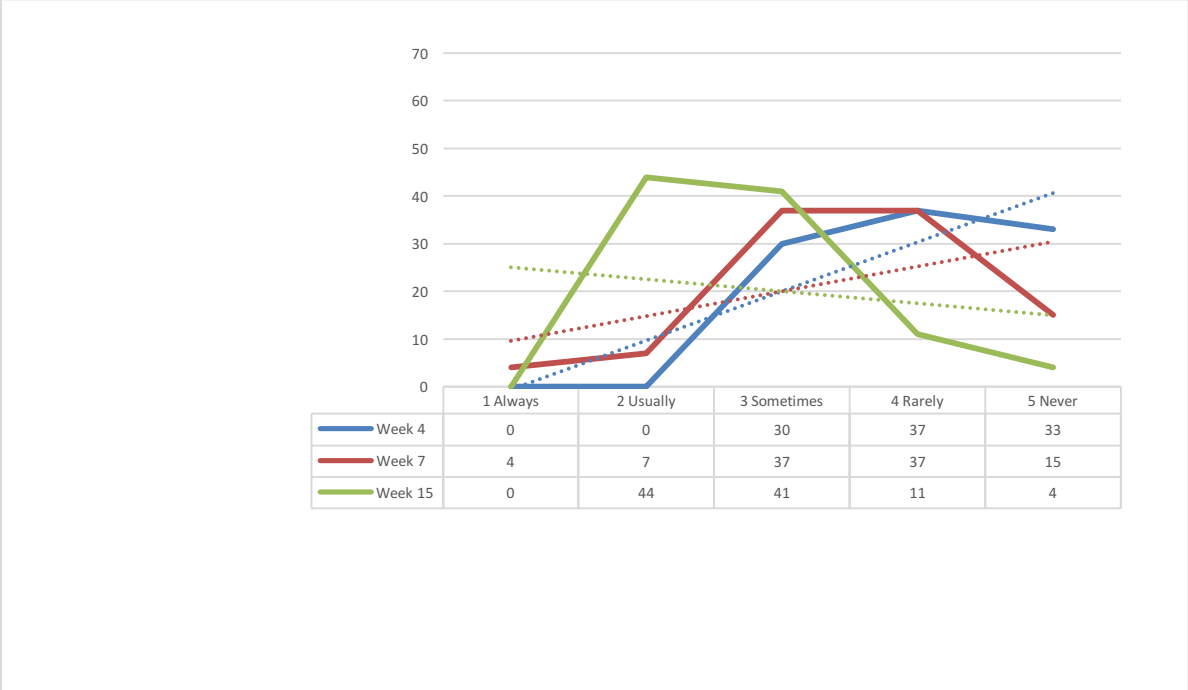
Finally, as shown in Table 4, the CoP features of mutual engagement, shared repertoire, and joint enterprise showed different developmental patterns. Although these three features did not simultaneously develop in CoP I through the research period, the features of mutual engagement and shared repertoire indicated similar developmental patterns (i.e., middle → middle → high). However, the transformation of the CoP element of joint enterprise displayed a different developmental pattern from that of CoP I (i.e., low → high → high).

Table 4: CoP I: Results of the highest frequency of CoP activity patterns and their transformation.

		Features of CoP	Beginning	Middle	End
Group A: Mutual Engagement	Q1	Human relationship expansion (frequently getting in contact)	Middle (closer to high)	Middle	High (closer to middle)
Group B: Shared Repertoire	Q2	Human relationship expansion (asking for help from other members)	High	High	High
	Q3	Human relationship expansion (sharing the same information)	Middle	Middle (closer to high)	High
	Q8	Understanding of semiotic resources and using them in CoPs	Middle (lower)	Middle (high)	High
	Q10	Understanding of jargons	Low	Middle	Middle (closer to high)
Group C: Joint Enterprise	Q6	Understanding members' knowledge and distributing knowledge	Low	High (closer to middle)	High (closer to middle)

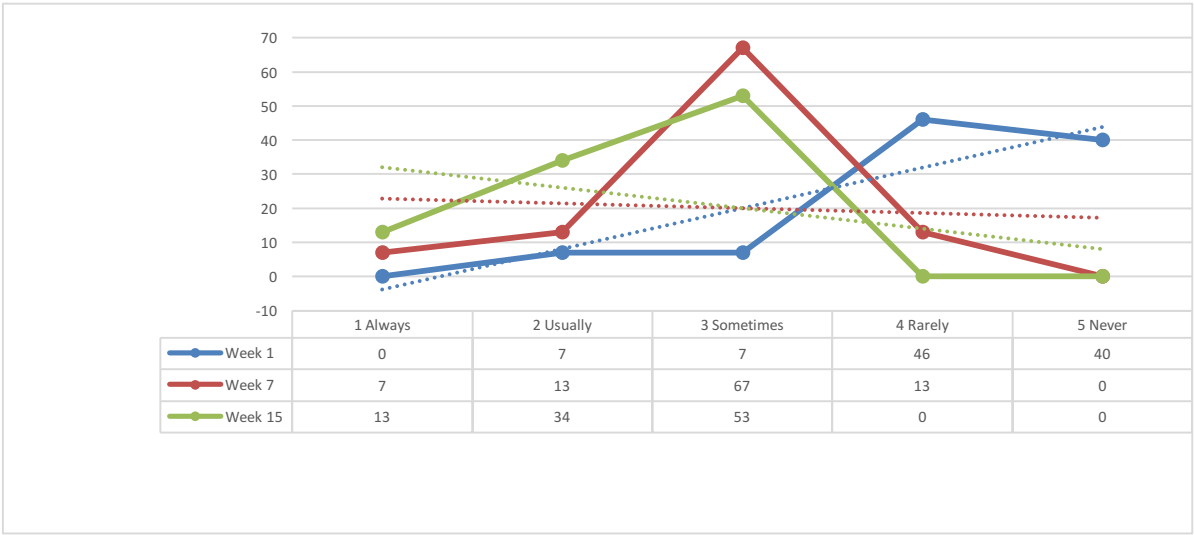
Phase 2

To investigate research question (2) (i.e., what are the common CoP activity patterns among the three different classrooms?), similar developmental patterns among CoP G, CoP I, and CoP J were examined during this phase. The EFL learners in these three classrooms were taught the genre-based approach of reading and writing by the same instructor using the same teaching methodology. However, data collection occurred at a different point. The results for Q10 ("Do you know any jargon or shortcut shared with your classmates?") showed a similar developmental pattern in all three classrooms (see Figures 1, 2, and 3).



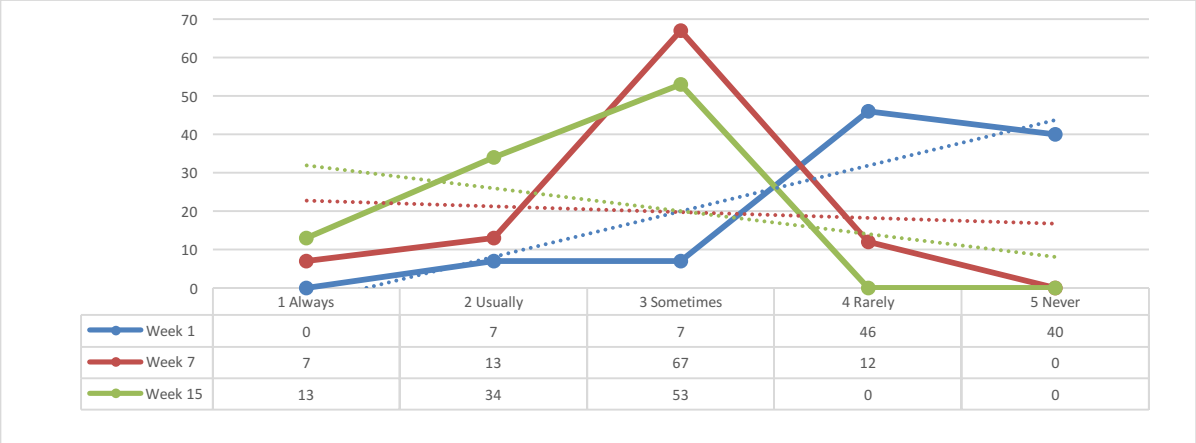
	1 Always	2 Usually	3 Sometimes	4 Rarely	5 Never
Week 4	0	0	30	37	33
Week 7	4	7	37	37	15
Week 15	0	44	41	11	4

Figure 1: CoP G: The approximate curves result for this question "What are the common CoP activity patterns among the three different classrooms?" at Week 4, Week 7, and Week 15.



	1 Always	2 Usually	3 Sometimes	4 Rarely	5 Never
Week 1	0	7	7	46	40
Week 7	7	13	67	13	0
Week 15	13	34	53	0	0

Figure 2: CoP I: The approximate curves result for this question "What are the common CoP activity patterns among the three different classrooms?" at Week 4, Week 7, and Week 15.



	1 Always	2 Usually	3 Sometimes	4 Rarely	5 Never
Week 1	0	7	7	46	40
Week 7	7	13	67	12	0
Week 15	13	34	53	0	0

Figure 3: CoP J: The approximate curves result for this question "What are the common CoP activity patterns among the three different classrooms?" at Week 4, Week 7, and Week 15

Among all three CoPs the understanding of the jargon used in the respective classroom generally increased over the course of the research period. In CoP G, this understanding dramatically increased from the middle to the latter stages of the research period (low → low/medium → high), while in CoP I, the understanding of the jargon sharply increased from the early to middle stages of the research period and then slightly increased from the middle to the latter stages (low → medium → medium/high). As for CoP J, the understanding of the jargon remained at a medium level from the early to middle stages of the research period but dramatically increased from the middle to the latter stages (medium →medium → medium/ high) (See Table 6). Finally, Q10 was categorized as a shared repertoire, according to Murillo's (2011) interpretation of CoP indicators.

Phase 3

With regard to research question (3) (i.e., how do these EFL classrooms develop from new learning communities into experienced ones?), this section describes how these EFL classrooms developed during the research period. In addition, the five stages of CoP development were applied to the results of Table 3, Table 4, Table 5 and Table 6, to discuss the development of CoP I and CoP J. It is important to note that the members of these communities had similar backgrounds and that the time of the data collection was the same.

CoP I

The results in Table 3 show that during the period immediately following the formation of CoP I, the comprehension of "understanding and behavior related to expansion of interpersonal relationships" by the students was moderate. In other words, they expanded their interpersonal relationships by sharing the acquired information and making an effort to contact other members on a regular basis. However, regarding Q2, CoP I showed a high level of "being able to seek assistance from members" immediately after its formation. This tendency continued from the early to the middle periods of the study.

Summarizing these analytical results, the understanding of "expansion of interpersonal relationships" did not start from a low level but from a moderate level. This suggests that the activities concerning the expansion of interpersonal relationships occurred within CoP I

immediately after its formation. Moreover, in the latter period of the study, the degree of expansion of interpersonal relationships was high. Based on these changes in CoP I, the state of Stage 1, that is, potential, created a high possibility of reaching Stage 2, that is, coalescing, prior to the early and middle periods of the study. In Stage 2, the connections to others deepened as trust and commonalities were discovered among the participants. Perhaps future studies should analyze self-reports of students to obtain a deeper understanding of their participation in certain activities.

Overall, the CoPs in this study showed four different developmental patterns: (1) an understanding of distributed cognition; (2) an understanding of English ability; (3) an understanding of semiotic resources; and (4) an understanding of terminology. In the early period of the study, the learners' understanding of these abilities was relatively low. More specifically, the distributed cognition for Q6 was low in the early period of the study, but it remained relatively high from the middle period on. The activity patterns for Q6, unlike those for the other items, achieved a high level of development in the early period. In this regard, a connection between interpersonal relationships and distributed cognition was considered in a question item about "understanding the abilities of the other members and solving problems by distributing them among group members." In other words, such results were expected from this item since the elements of interpersonal relationship expansion in Group A were largely shared.

Furthermore, the students' understanding of Q8 increased from the middle period of the study on. The understanding of Q10 was low in the early period of the study, which continued until the middle period. In other words, in Stage 1 (i.e., potential), CoP I was at the stage in which the participants deepened their social networks to clarify any ambiguities among themselves. In Stage 2 (i.e., coalescing), although the participants' existing knowledge about CoPs was combined with the knowledge learned thus far (Wenger et al., 2002), it took CoP I some time to mature, which continued into the latter period of the study. In Stage 3 (i.e., maturing), the participants spent more time building their relationships and gaining an understanding of their common goals, objectives, roles, and boundaries within the community (Wenger et al., 2002). Although the understanding of common goals and objectives (Q8) was already moderate in the early period of the study, the results showed that this understanding was high during the latter period.

CoP J

As shown in Tables 5 and Table 6, during the period immediately following the formation of CoP J, the lower-proficiency group and its understanding of Q1 and Q3 was moderate. The learners in CoP J were already maintaining frequent contact with moderate intensity in the early period of the study, which continued during the middle period and further developed in the latter period. In addition, there was already a mild degree of favorable responses to Q3 in the early period and a moderate sharing of information by the learners. When transitioning from the middle period to increasing information sharing and diffusion, a high degree of transition occurred, this continued in the latter period. There was also a relatively high degree of responses to Q2 early in the study since interpersonal relationships were already being formed to the extent that mutual peer-to-peer assistance was possible. This tendency strengthened later in the study.

The activity patterns for Q6, Q8, and Q10 suggested limited development compared to those for Q1, Q2, and Q3. In addition, compared to CoP J, CoP I showed no development with

regard to the understanding of members' knowledge, semiotic resources, and jargon, that is, Q6, Q8, and Q10, respectively. The group did not show any growth from the early to middle periods of the study regarding features related to Q6 (i.e., spread of distributed cognition) or Q10 (i.e., understanding of terminology). In the latter period, the understanding of other members' English abilities and of one's own terminology was high. Furthermore, the developing activity patterns related to Q9 (i.e., understanding common objectives and common tools) already showed moderate understanding in the early period of the study. In the middle period of the study, there was also a slight increase in understanding this feature. Thus, the degree of understanding among the EFL learners in CoP J with regard to sharing common goals and tools, understanding jargon, and understanding classmates' abilities was similar from the middle to latter periods of the study. In sum, the activity patterns regarding the understanding of members' knowledge, semiotic resources, and jargon (i.e., Q6, Q8, and Q10, respectively) showed growth from the early to the latter periods of the study. However, this growth was not large compared to the growth of other elements.

Table 5: CoP J: Frequency of response (in %), means, standard deviations, and learners' understanding of CoP features (n = 17).

Dimensions	Questions	M	SD	Week	1	2	3	4	5
					Always	Usually	Sometimes	Rarely	Never
Mutual Engagement	1. Do you have a constant relationship with your classmates?	2.64	0.84	1	7% (1)	36 % (5)	43 % (6)	14 % (2)	0% (0)
		2.86	0.86	7	7% (1)	22% (3)	50% (7)	21% (3)	0 % (0)
		2.29	1.20	15	43% (6)	0 % (0)	43% (6)	14 % (2)	0 % (0)
Shared Repertoire	2. When you have a problem, do you ask a classmate for help?	1.93	0.62	1	22%(3)	64% (9)	14% (2)	0% (0)	0% (0)
		2.21	1.12	7	36% (5)	21% (3)	29% (4)	14% (2)	0% (0)
		1.79	1.19	15	65% (9)	7% (1)	14% (2)	14% (2)	0% (0)
	3. Is information propagated quickly?	2.43	0.85	1	14% (2)	36% (5)	46 % (6)	7% (1)	0% (0)
		1.93	1.07	7	43% (6)	36% (5)	7% (1)	14% (2)	0% (0)
		1.86	1.10	15	50 % (7)	29% (4)	7 % (1)	14% (2)	0% (0)
	8. Do you remember any shared goals or tools that you used with the members of your class?	2.79	1.19	1	7%(1)	43% (6)	29% (4)	7% (1)	14% (2)
		2.71	0.47	7	0% (0)	29% (4)	71% (10)	0% (0)	0% (0)
		2.00	0.55	15	14% (2)	72%(10)	14% (2)	0% (0)	0% (0)
	10. Do you know any jargon or shortcut shared with your classmates?	3.36	0.93	1	0% (0)	14% (2)	50% (7)	22% (3)	14% (2)
		3.00	0.78	7	7% (1)	7% (1)	64% (9)	22% (3)	0% (0)
		2.50	0.76	15	7% (1)	43% (6)	43% (6)	7% (1)	0% (0)
Joint Enterprise	6. Do you know your classmates' skills and how these can be used to achieve a common goal/task?	2.86	0.66	1	0% (0)	29% (4)	57%(8)	14%(12)	0%(0)
		2.50	0.52	7	0% (0)	50% (7)	50% (7)	0% (0)	0% (0)
		1.79	0.70	15	36% (0)	50% (7)	14% (2)	0% (0)	0% (0)

Table 6: CoP J: Results of the highest frequency of CoP activity patterns and their transformation.

Dimensions		Features of CoPs	Beginning	Middle	End
Group A: Mutual Engagement	Q1	Human relationship expansion (frequency of contacts)	Middle	Middle	Middle and high
Group B: Shared Repertoire	Q2	Human relationship expansion (asking help from other members)	Middle (closer to high)	Middle (closer to high)	High
	Q3	Human relationship expansion (sharing the same information)	Middle	High	High
	Q8	Understanding of semiotic resources and using them in CoPs	Middle	Middle (closer to high)	Middle (closer to high)
	Q10	Understanding of jargon	Middle	Middle	Middle (closer to high)
Group C: Joint Enterprise	Q6	Understanding of members' knowledge and distribution of knowledge	Middle	Middle	Middle (closer to high)

Applying the Results of CoP J to Wenger et al.'s (2002) Stages of CoP Development

The results regarding the expansion of interpersonal relationships between learners in CoP J suggests that it was at the stage when the participants deepened their social networks. It was also confirmed that Stage 1 (i.e., potential) is when learners in newly formed CoPs use shared information to search for other members with common objectives and values, after which they transition to the next stage. Stage 2 (i.e., coalescing) is when the participants combine their previous knowledge with the knowledge previously learned (Wenger et al., 2002). However, considering that the activity patterns of Group B did not grow much over the 15-week course and that the growth rate was not large compared to CoP I (even though CoP J reached Stage 1 of development, according to Wenger et al., 2002), there were signs that it had not reached Stage 2.

Finally, the common developmental patterns of CoP features were apparent in CoP I and CoP J. The highest frequency results for the question items are summarized in Table 6. The learners' awareness regarding the CoP feature of joint enterprise (Q6) started at the low-middle level, where it continued until Week 7. Eventually, their awareness improved to the middle-high level in Week 15. This pattern also appeared in the feature of shared repertoire (Q8, i.e., the understanding of semiotic resources), whereas the other element of shared repertoire (Q10, i.e., the understanding of jargon) showed a different developmental pattern. In addition, the understanding of jargon in CoP I and CoP J was extremely low at the beginning of the study. This CoP feature took some time to develop to the middle-high level, while the CoP element concerned with human relationship expansion, such as asking for help from other members and sharing information, showed a completely different activity pattern. Finally, the learners' awareness of these elements was relatively higher than the other elements at the beginning of the study, which was maintained until its conclusion.

Conclusion

Using the CoP concept as a basis, this study investigated the changes in learners' degrees of participation and the CoP elements in EFL writing/reading classes when the SFL genre-based approach to language learning was introduced over a 15-week course. The results revealed two major features. First, similar developmental activity patterns were found among the three CoP For instance, human relationship expansion (Q1) showed similar developmental patterns between CoP I and CoP J which are relatively higher English proficiency groups, that is, it was at the moderate level during the beginning and middle stages, after which it increased at the end of the research period. In addition, the activity patterns of the human relationship expansion (Q2) was the same among CoP G, CoP I, and CoP J, while the learners' development patterns in asking for help (Q2) changed from the near-high level at the beginning of the study to the medium level at the middle and then to the high level by the end of the course. As for the feature of sharing the same goals and tools, CoP I and CoP J had the same developmental patterns (higher English proficiency groups), that is, at the beginning and middle stages, the learners' understanding was at the moderate level. Although this feature took some time to improve, it eventually developed by the end of the study. Furthermore, the CoP feature of understanding jargon and special terminologies showed different developmental patterns. For instance, in CoP G and CoP I, only a few learners understood this feature at the beginning and middle of the course. However, they eventually understood it by the end of the 15-week course.

The results imply that the features involving human relationship expansion, including frequency of contacts, asking for help from other members, and sharing the same information, will expand during the early or middle stages of a 15-week course. Moreover, the EFL learners in this study had higher attention spans at the beginning of the research period, which they maintained during the entire course. On the other hand, the features of understanding other members' knowledge, distributing knowledge, and understanding semiotic resources and jargon started to develop in the latter stages of the course. Overall, it is important to note that teachers' understanding of their own classrooms is essential since the transformations in CoPs can greatly differ, that is, some learners improve in the early stages, whereas others improve in the latter stages.

Although the present study yielded a number of significant findings concerning the link between the CoP concept and EFL classrooms, there are several limitations. First, the number of participants in this study was relatively small, even though the data was collected over different years and some similarities in the CoP activity patterns were found. Thus, future studies should focus on a larger sample of participants. Second, only one strategy was used to identify the classroom communities' improvements due to the word length. Hence, future studies should consider multiple strategies to identify CoP transformations. Third, similar patterns and developmental timings for the three classrooms in this study were found. However, it is unclear how the three dimensions of mutual engagement, joint enterprise, and shared repertoire were influenced to develop the communities. In this regard, it would be informative if additional studies focus on learners' self-reflections of their classroom participation to better understand these dimensions and how EFL classroom developments and learners' participation reciprocally influence one another. Finally, this study could not generalize changes in CoP activity patterns over time for multiple communities in educational contexts. Therefore, future studies should focus on different types of EFL communities to help the CoP concept become more generalized.

Despite these limitations, the present study provides significant implications for classroom research and EFL pedagogy, especially with regard to EFL classrooms with similar backgrounds. More importantly, the theoretical and pedagogical potential of the CoP concept can offer an important interface between TESOL and classroom research.

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Appendix

CoP indicators and their relationships to the questions used by Ribeiro (2011)

	Indications of CoP (Wenger, 1998)	Dimensions (Murillo, 2011)	Questions for this research
1	Sustained mutual relationship– harmonious or conflictual	Mutual Engagement	Do you have a constant relationship with your classmates?
2	Shared ways of engaging in doing things together		When you have a work problem, do you ask a classmate for help?
3	Rapid flow of information and propagation of innovation		Is information propagated quickly?
4	Absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process		Do you need to explain your task activities before engaging in a conversation with a classmate?
5	Very quick setup of a problem to be discussed		Is it easy to introduce a problem that requires a discussion among your classmates?
6	Substantial overlap in participants' descriptions of who belongs	Joint Enterprise	--
7	Knowing what others know, what they can do, and how they can contribute to an enterprise		Do you know your classmates' skills and how these can be used to achieve a common enterprise?
8	Mutually defining identities		--
9	The ability to assess the appropriateness of actions and products		Can you assess the appropriateness of an action or product for the classroom?
10	Specific tools, representations, and others artifacts	Shared Repertoire	Do you remember any shared goals or tools that you used with the members of your class?
11	Local lore, shared stories, inside jokes, knowing laughter		Do you know any story, case, or joke shared with your classmates?
12	Jargon and shortcuts to communication as well as the ease of producing new ones		Do you know any jargon or shortcut shared with your classmates?
13	Certain styles recognized as displaying membership		Can you define a characteristic of your roles shared with your classmates?
14	A shared discourse reflecting a certain perspective on the world		---