A Case Study of Project-based English Learning Experience in a Simulated Business Context

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Received: October 10, 2019 Accepted: November 4, 2019 Online Published: November 6, 2019

Abstract

Simulation technique could be effective if it is cleverly manipulated and incorporated in a project-based learning context. This current study aims to explore students' learning experience in a project-based simulated business context. The participants were 51 second and third year students who took Business English as an elective course at a private university in central Taiwan. In the project, the participants modeled an episode in a reality TV show, The Apprentice, and tried to plan their projects of selling beverages to the students on campus using English. The students were engaged in the whole process from initial project planning to the final oral report of presenting their selling strategies. The results from the participants' questionnaire responses and interview data revealed that they felt the course was more motivating, interactive and practical than traditional business course. It is also suggested that this simulated business project provide students with opportunities for social interaction and a psychologically safe team environment to work collaboratively, which both contributed the development in synergistic knowledge.

Keywords: simulation technique, project-based learning, synergistic knowledge, business English

1. Introduction

In traditional business English classes, it is difficult to meet the needs of both teachers and students in enhancing the communicative and pragmatic skills that students lack, such as being confident in various business contexts while performing face-to-face communication or being able to impress clients using persuasive language. Wolfe and Luethge (2003) contend that simulation techniques are effective in business education, which offers rewarding experiences and promotes the integration of theory and practice. Thus, in the current study, we incorporate simulation techniques and explore whether students are engaged in learning business professional knowledge and skills through the process of conducting the designed project, which resembles the real-life business context.

In the conventional English classes at colleges and universities, teachers choose a textbook and teach the vocabulary and grammar points in the lessons. Some teachers may add interactive activities if they sense teaching should be student-centered rather than teacher-centered. This traditional method has several drawbacks. For instance, English teachers spend too much time lecturing and students do not have enough time practically using English in class. In addition, students' English proficiency varies across classes. Often classes are too large, which causes problems for teachers in managing the class.

New approaches in recent years address the problems of traditional English classes. One such approach, the flipped classroom, is a project-based approach. With its unique features, it may be able to emphasize both language skills and communicative skills using student-centered learning and instruction. It may also have the potential to create a collaborative, autonomous learning environment and simultaneously solve tricky problems such students' varied English proficiency levels and low motivation (Liu, 2014). Stoller (1997) stated that project-based learning (PBL) "is a versatile vehicle for fully integrated language and content learning, making it a viable option for language educators working in a variety of instructional settings" (p. 3). Eskrootchi and Oskrochil (2010) observed that PBL is a combination of traditional subject-matter learning and real-word

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authentic learning environment via application and manipulation of content knowledge within context.

Project-based learning using simulation strategy in business English classes offers several benefits. First, through learning by doing, students integrate and apply their English skills in the decision-making process while completing the assigned project. Second, a simulated business context allows students to make mistakes and to learn from mistakes without facing the consequences, as in real world scenarios (Weterman, Weterman, & Hogan, 2011). Third, as Eisner (2011) noted, students are assigned to conduct a project simulating a task in which the job candidates worked as a team to tackle on-the-spot business challenges, which allows them to negotiate in English using teamwork and promotes innovation and leadership skills. Fourth, it promotes the application of the target language in simulated real-world tasks, which enables the students to learn the real-world tasks. Fifth, students can practically learn the meaningful use of business English rather than sentence-level or vocabulary of English while doing the tasks. Last, as Dounhty and Long (2003) stated, the rich specific input of the more complex tasks fosters language acquisition.

Thus, in this study, the researchers adopted an authentic business scenario based on a famous reality show, The Apprentice, as the model for the project learning activities. This study intended to help students to learn the business language skills in the course and develop further learning through applying and manipulating the content knowledge. Although this kind of innovative authentic learning by incorporating features of real-life scenarios into schoolwork may generate challenges for both instructors and students, it may also promote deeper learning and bring numerous benefits. Specifically, the purpose of this study was to explore student perceptions of and attitudes towards their experiences of taking business English courses based on business simulations. The research question is: what are student perceptions of the business simulation?

2. Method

2.1 Participants

The participants of this study were 51 second and third year students who took Business English as an elective course at a private university in central Taiwan during the fall semester. 32 of 51 participants were female and 19 were male students. These students were English majors in college.

2.2 Teaching Procedures

The course objectives primarily enabled students to become familiar with business English and improve conversational fluency in business workplaces. The other two objectives were for the students to become familiar with strategies for the real business world with ample personalized opportunities, and to express their own viewpoints clearly.

Thus, based on the course goals, the curriculum design focused on several criteria. First, we guided students through the basics of business communication in English to teach real-world English. Second, we hoped to help students develop business skills in English listening and speaking, and to familiarize students with business techniques in various business settings. Furthermore, we wanted our students to develop a solid foundation in global business with real-life experiences, a core goal of the curriculum design.

The teaching strategies in this study included: (1) lecturing (2) group work (3) class discussion (4) class activities, and (5) online learning. In addition to the business-related content and textbook teaching, students were required to discuss business/culture issues after watching the "Apprentice" video (theme: beverage selling) during the semester. Then, students were divided into ten groups and a group leader election was held. During the semester, each group discussed a good location for selling beverages, came up with persuasive language for promoting their beverages, compared and contrasted "Protégé" and "Versacorp" from the video to simulate how they conducted their projects, and accomplished the preparation of the required task, including the advertisement, slogan, strategies, and prices of their beverages. These 10 groups were arranged to accomplish the project. Five groups performed beverage selling while the other five groups acted as assessment observers. The entire process of beverage selling was conducted in English, and lasted for two weeks, each group on campus for one hour for the consecutive two weeks. These two different groups swapped roles at the end of the semester. The observing groups recorded the process to switch their role and accomplish the same assignment as the selling groups. The teacher assessed and filmed the process of the beverage selling for each group. After a practical sale, each group was required to report their group names, introduction, team members' introduction, the first task in the group, group advantages, and disadvantages, the profit the group made from the sale, and present a SWOT analysis of the task in their final presentation.

2.3 Data Collection Techniques

This study used qualitative and quantitative methods to investigate student perceptions of the project-based

business simulation. Focus group interviews and questionnaires were employed as the data collection techniques in this study.

2.3.1 Focus Group Interviews

The purpose of using focus group interviews in the study was to address the issue of the effects of project-based English learning experience in a simulated business context from the participants' perspectives through the articulation of experiences and insights produced by the interaction among the participants. Morgan (1997) defined focus groups as "a research technique that collects data through group interaction on a topic determined by the researcher" (p. 6). The focus group interview was also an opportunity to allow participants to reflect and comment on questions, to hear others' perspectives, and add additional information to what was considered initially (Fontana & Frey, 1994; Farley-Templeton, 1994). The group interaction enables participants not only to share multiple understandings, but also stimulates additional thoughts and explanations about their attitudes, beliefs, and experiences. Hence, the advantages of using a focus group interview in this study included: (1) eliciting a multiplicity of views and insights derived from and stimulated by shared understanding in a group context; and (2) learning how participants talk about this course in a business simulation context. In this study, the focus group interview focused on an open discussion of three areas in relation to participants' perceptions and experiences: (a) taking the business English course and their attitudes toward and desires for the course as future learners of the course; (b) factors that make the business English course effective or ineffective; and (c) the impact of what they expected and wanted from the business English course

After recruiting participants for the focus group interview, an interview protocol (see Appendix A) was designed by the researcher. Some of the questions were: What do you feel impressed about after taking the business English course? Have you perceived any differences in business English courses after taking this course? Do you observe any change in your English, learning skills, and professional knowledge after taking this course?

All of the participants were divided into 10 focus groups for interviews. The group interviews were audio taped, and later transcribed. Each group's interview lasted approximately one hour. All of the interviews were held after students finished their project and course requirements.

The focus group interview provided an opportunity to select individuals with different perspectives on the role and/or effectiveness of the business simulation. As Morgan (1997) suggested, a preliminary focus group interview can provide a useful starting point for individual interviews that involve unfamiliar interviewees. They can reveal the extent of the group's beliefs, perspectives, and experiences and help identify individuals with different views on the subject of the conversation.

2.3.2 Questionnaire

All students were asked to answer the questionnaire designed by the researcher at the end of the semester.

2.4 Data Analysis

For the interview data, the researchers translated and transcribed all Chinese audiotapes into English. Thematic content analysis was used, with the following steps:

- (a) Become familiar with the data (reading and re-reading)
- (b) Coding (labeling) the whole text
- (c) Searching for themes with broader patterns of meaning
- (d) Reviewing themes to make sure they fit the data
- (e) Defining and naming themes
- (f) The write-up (creating a coherent narrative that includes quotes from the interviewees)

For the questionnaire, all data were read and analyzed through the question number (designated 1 to 11). In addition, each question was analyzed based on the responses of the participants. Through this, new themes were compared or combined with existing ones to clearly elicit the development of topics.

3. Results

The data from questionnaire and qualitative method are discussed below.

Five items were listed as over 70% of strongly agreed or agreed from the questionnaire. They were

- ♦ I can use various resources to perform the project (selling beverages).
- ♦ I believe doing the project needs every team member's involvement and effort.

- ♦ Doing this project made my learning connect with the real world.
- ♦ Doing the project let the students make their own decisions and policies.
- ♦ Doing the project let the students make persistent efforts.

From the qualitative analysis, six themes were reported from focus group interviews.

- ♦ Marketing and Communication Skills
- ♦ Highly Practical, Interesting, and Vivid Course
- ♦ Highly Professional Course
- ♦ Increase in Oral Language Skills
- ♦ Teamwork Skills
- ♦ Presentation Skills

Thus, six categories of integrated results from quantitative and qualitative methods showed that the business simulation enabled students to:

- ♦ develop marketing and communication skills
- ♦ improve their skills in English speaking, presentation, and constructing Powerpoint presentations
- ♦ understand the importance of teamwork
- ♦ make persistent efforts based on professionalism
- ♦ understand the connection between the course and the real world
- ♦ make their own decisions and policies

3.1 The Focus Group Interviews

At the end of the course, students were asked to report their difficult and enjoyable experiences, what they learned, and their suggestions for the course. Rich insights into learners' views regarding this project-based learning emerged through the interviews. The results were categorized into six themes:

3.1.1 Marketing and Communication Skills

When asked about what impressed them the most about the project, the majority of the students stated that this project let them learn real experiences of how to sell their products. Students indicated they experienced a breakthrough in this course since they learned communicative skills, negotiation methods, marketing strategies, and body language as they presented a product. They also learned how to manipulate marketing strategies and use communicative skills to attract customers and arouse their purchase desires. Students also mentioned through learning by doing, they gained practical skills, such as how to introduce their products in English, business principles, and effective communication, none of which can be learned from the textbooks. In addition, during the sales process, they not only learned how to communicate with the customers but also with their teammates, because any misunderstanding could negatively affect the success of the project. Student responses in the interviews were as follows (Table 1).

Table 1. Student interview responses

Student No.	Interview Response
S1	It let us have practical experience in understanding the process of selling beverages and how to sell our products
S4	Taking this course was a revelation to me, because we learned communication skills, negotiation skills, marketing and selling strategies, and body language from this course.
S5	I feel this combined the marketing aspect
S11	I felt impressed when I sold the beverages, and I learned how to attract customers and introduce our own products in English.
S19	I learned personal communication skills, and the principles of marketing and business principles.
S29	Communication should be emphasized in a team. If communication is not good, even good

	friends still have arguments. We have to try our best to communicate with people who have different opinions, and express what we think, otherwise, misunderstandings will affect the friendship in a team. So, I think communication is important in a team.
S35	I learned the importance of marketing strategies. Better and precise communication skills can capture the purchasing desire of customers if we want to attract customers.
S45	The course enabled me to understand the importance of communicating with people. If we do not express ourselves, others will not know what we want to do. If I used my way to take this course, it will not work. I learned that communication needs skills to clearly express what we want to do to let customers understand what my purpose is.

3.1.2 Highly Practical, Interesting, and Vivid Course

The vast majority of the students responded that this business English course flipped their thinking. Originally, they thought business English classes focused on memorizing vocabulary in for business, which would be tedious. However, the students were surprised that the instructor let them implement a business plan, sell a product, and engage in business behaviors. Therefore, most of the students said they felt this course was fun, challenging, and practical. Further, some students mentioned that different from traditional business English classes which centered on grammar and sentence structures, this innovative Business English course was much more interesting, helpful to their future careers, and created more classroom interaction. Most students said that they gained much insightful input from this course. Student responses in the interview are given in Table 2.

Table 2. Student interview responses

Student No.	Interview Response				
S2	In the past, I thought Business English courses just focused on memorizing words in the textbooks or relevant words. We were surprised that the teacher let students actually sell products to let us understand more about business behavior.				
S10	This class is different from other classes. The teacher let us to do things practically, and let us understand more about how to carry out and complete business behavior.				
S16	After taking the course, we learned how to sell beverages. What is even more special is the presentation and the things we needed to discuss together. We never did that before, so I thought I really learned something from this class.				
S20	We felt positive after this class, and the teaching style jumps outside of traditional teaching. It was very interesting.				
S24	A general class won't have this curriculum design. This class is special.				
S28	The usage and phrases of business letters in the business English course can be used, and I felt them to be very helpful.				
S32	I thought the teaching style would be boring before taking the class. However, after taking the class, I felt this class was active and exciting. I thought it might be the teacher's teaching style which was different from other teachers.				
S38	I felt that the business English writing in this course was more helpful in comparison to basic writing courses.				
S40	I felt this course was more interesting and I had more interactions in class.				
S45	I thought this course "Business English" was very practical.				

3.1.3 Highly Professional Course

Most of the students responded that in this course they learned subject-specific terms for business, which were seldom used in daily life. They felt that this course was highly professional and responded that they learned more commercial terms in this course than in general English courses. Students also stated that they were impressed by the video supplementary program, "The Apprentice," in which they learned some professional business jargon. Many also said that their professional vocabulary and knowledge in business increased and found the

content of this course was more professional and business-oriented than other classes. Some even mentioned that they preferred this kind of professional classes because of its creativity and they felt motivated due to its challenging tasks, which made them feel a sense of accomplishment. Pragmatically, after this course, students stressed that they were able to distinguish formal language from informal and learned how to choose appropriate language to use in the proper situations. Table 3 lists student responses in the interviews.

Table 3. Student interview responses

Student No.	dent No. Interview Response					
S1	I thought what the teacher taught would be similar to the general courses before this course "Business English". I found the content is more professional and commercialized after this class.					
S7	I preferred professional courses which were more creative and motivated and challenged me so that I feel accomplishment.					
S17	I found that this class is not just focused on business letters but something more practical after the class. For example, the skills needed in business were what we need to learn. I knew what professional Business English was after taking the class.					
S29	I learned more about specific words used in business in terms of language learning.					
S30	General English is common, and business English is more professional.					
S36	Business English is different from the other general courses. This course with specific purposes made me eager to deeply learn.					
S40	When we talked in the business meeting, it seemed to be a formal meeting and to be serious.					
S41	My professional knowledge about business areas has been increased.					
S43	Learning formal and informal usages was pretty good for me. We knew how to tell the difference between formal and informal usage for different occasions.					

3.1.4. Increase in Oral Language Skills

Many students mentioned that they picked up useful tips for job interviews and English presentations. In the section on oral speaking skills, they practiced being brave enough to talk to people when selling beverages, and tried their best to persuade customers to buy their products. Therefore, many stated that this practice made them bolder in speaking English. The majority of students suggested that this project provided opportunities for them to speak in English, such us selling beverages in English, discussing with team members in English, and giving oral English presentations. During the process of completing the project, they were forced to speak in English and they all stated that this experience increased their confidence in speaking English. Although at the beginning, they felt a little awkward, they gradually overcame their fear and became more skillful in selling in English. Student responses in the interview are given in Table 4.

Table 4. Student interview responses

Student No.	Interview Response
S1	I learned useful tips for job interviews and English presentations. In the language section, we were braver and more confident in talking to people when we sold beverages, and tried our best to persuade customers to buy our product.
S8	I leaned that we needed to use formal phrases for the beginning of English presentations when we presented.
S12	It would motivate us to speak English in public, because we have to speak English during the process of selling beverages.
S17	We were braver to talk to customers in English when we sold beverages.
S26	At the beginning, we felt strange in speaking English out loud, but speaking English

	became more natural after the project of selling beverages.
S29	I become more confident in speaking English, because I usually dare not speak English in public. However, when you are forced to do this, you have to speak English. Then, speaking English became more familiar from the difficulties we had in speaking English.
S35	We had more opportunities to speak English. We have to speak English in our discussion, and do so during the beverage selling.
S42	Although we can say whatever we want to say during the process of selling beverages, I became more confident in speaking English and talking to strangers in public. We might dare not be brave if we just intended to sell something, but it really worked due to the requirement to speak English.

3.1.5. Teamwork Skills

Learners reported that in this project they learned the importance of teamwork, how to help each other within time limits, how to use each team member's special strengths, and the significance of good leadership. Student responses in the interview are giving in Table 5.

Table 5. Student interview responses

Student No.	Interview Response					
S1	We understood the importance of teamwork during the preparation and sale of beverages.					
S6	I learned the importance of teamwork, and that everyone should try their best to do well in the team.					
S11	We had to discuss what beverages we planned to sell, the materials we should prepare, and how to interact with customers in English before doing this project of selling beverages. It took us much time discussing in the meetings during the project.					
S13	I learned the importance of teamwork and oral presentation in this project. Distributing the work and cooperating with one another in the teamwork were important, because each member can develop what they are good at.					
S26	It took us much time and effort to complete our report and presentations in this course "Business English". For example, we have to discuss how to present and do the film in our meeting.					
S27	We learned teamwork.					
S30	Members of a team needed to share the work and cooperate with one another, because what everyone is good at is different.					
S32	I understood the spirit of teamwork in a job when we sold beverages together. Because we also needed to work with others when we really have a job in the near future.					
S36	Members can help with each other in a team. We learned how to divide our work, and do it together. So, I thought that something about my teamwork skills changed.					

3.1.6. Presentation Skills

The learners also mentioned that they learned the presentation skills in the project. For example, good presenters should not read the words from the slides. Instead, they have to integrate information, explain the key points through the slides, and avoid making the audience bored. Student responses in the interviews are given in Table 6.

Table 6. Student interview responses

Student No.	Interview Response
S14	The teacher taught us to use pictures to replace more and redundant words, and use different styles for the format. We realized that we had to comprehensively express our points rather than reading word by word from the slides in our presentation.
S18	The practice of oral presentation was helpful for our future. We had to integrate all the members' ideas and thoughts to complete a good presentation.
S27	One slide of ppt can be shown in one simple picture, and presented our key points. You can explain more in your presentation, but too many words in the ppt would make audience feel bored.
S34	We learned that we should improve our skills of information integration when we did the slides of the powerpoint presentation.

3.2 The Questionnaire

Analysis of the questionnaire strongly implied that students' perceptions and attitudes of their experiences of taking business English courses based on business simulation are quite positive. In addition, the Cronbach's α value was 0.895, implying the questionnaire items had high internal consistency and reached a high reliability. As shown in the first two items in Table 7, over 70% of the participants strongly agreed or agreed that they had a clear goal and main topic in mind and can use various resources when doing the project of selling beverages in English. Further, about 60% of the students strongly agreed or agreed that they practiced observational skills, used critical thinking, and developed effective teamwork when performing the project indicated in items 3 and 4. Furthermore, over 88% of the participants strongly agreed or agreed that doing this project made all team members actively engaged and put effort into it.

Roughly 69% of the students strongly agreed or agreed that doing this project made them learn the ways to use the creativity and effectiveness of multimedia. About three quarters of the participants strongly agreed or agreed that doing this project made their learning connect with the real world. Since the project was designed based on a real-world scenario, it was expected that students could feel they were able to apply the business English skills they learned in class to a project which simulated authentic enterprise settings. Likewise, as shown in item 8, approximately 68% of the participants strongly agreed or agreed that performing the project made them engaged in situational learning in business English. Furthermore, more than 88% of the participants strongly agreed or agreed that they learned to make their own decisions and policies during the process of completing the project. Last but not the least, over 76% of the students strongly agreed or agreed that doing the project let the students make persistent effort, which implied the students were actively involved in the whole process and since they had a common goal in mind, each of them strived to achieve it together.

Question 11, with multiple answers, asked about what skills students used when doing the group project. 45 responses identified communication skills, 44 responses identified teamwork skills, 39 responses identified problem-solving and critical thinking skills, and 35 identified doing Power Point Presentations and oral presentations.

Table 7. Questionnaire Results

	Items	Strongly	Agree	neutral	disagree	Strongly
		agree				disagree
1.	I have the goal and main topic in mind	9.8%	50.98%	37.25%	1.96%	0%
2.	I can use various resources to perform the project (selling beverages).	5.88 %	68.63%	23.53%	1.96%	0%
3.	I think I used my observation skills and critical thinking to complete the project.	11.76 %	49.02%	37.25%	1.96%	0%
4.	I believe when performing the project we developed effective teamwork.	23.53%	35.29%	31.37%	9.8%	0%

5.	I believe doing the project needs every team member's involvement and effort.	49.02%	39.22%	5.88%	3.92%	1.96%
6.	Doing this project made me learn ways to use the creativity effectiveness of multimedia.	19.61%	49.02%	25.49%	5.88%	0%
7.	Doing this project made my learning connect with the real world.	25.49%	47.06%	21.57%	3.92%	1.96%
8.	I think doing the project is situational learning in business English.	21.57%	45.10%	29.41%	3.92%	0%
9.	Doing the project let the students make their own decisions and policies.	23.53%	64.71%	9.8%	1.96%	0%
10.	Doing the project let the students make persistent effort.	23.53%	52.94%	19.61%	3.92%	0%

4. Discussion

The findings from this study highlight several benefits of using simulated business project-based approaches in business English course. First, the students' focus interviews revealed that the instructor presented the pedagogical content knowledge (PCK) to provide an environment of team psychological safety for them. According to Bransford et al. (2000), PCK is:

Expert teachers know the structure of their disciplines, and this knowledge provides them with cognitive roadmaps that guide the assignments they give students, the assessments they use to gauge students' progress, and the questions they ask in the give and take of classroom life. In short, their knowledge of the discipline and their knowledge of pedagogy interact. (p. 155).

Students reported they had the opportunities to make their own decision and policies in this course. They also mentioned that this course was professional and interesting so that they were willing to spend time discussing the project they should finish in the team. Furthermore, they should discuss, and find a best decision to complete their project in this course. If students could not build mutual trust and respect to deal with conflicts in their group, they could not to create productive group work. Given the concept of learning environment, the instructor provided students with systematic guidance of team-based business simulations in order to reduce a psychologically uneasy and stressful group environment. During the semester, the instructor also encouraged students to develop a set of group norms to foster open exchange of ideas and facilitate students' interactions in a group. At the same time, the instructor had to patiently monitor the groups and remind them of the group norms and learning outcomes the instructor expected. Thus, students knew what they were supposed to do in the project and how to create constructive discussions. In sum, the results of this study clearly corresponded to the concept of team psychological safety (Edmondson, 1999). Edmondson (1999) defined team psychological safety as the feeling within the group that members respect and accept different perspectives, and believe that their group is open to different viewpoints. Students should feel comfortable and safe in their group environment in order to enhance collective outcomes.

Second, our findings strongly suggested that simulated business project-based learning helps develop students' social interaction skills in business English. While doing the project, students actively engaged themselves in practicing skills such as observational skills, critical thinking, managing conflicts by communication skills, team-working, decision-making and the oral language skills of English, which is consistent with the findings of Musa, Mufti, Latiff, and Amin (2011). Students reported that they developed communication, marketing, and leadership skills from the business simulation, findings similar to those of other studies (Colbeck, Campbell, & Bjorklund ,2000; Xu & Yang, 2010), which explained that the project-based business simulation helped students develop problem-solving and social interaction skills by synthesizing different perspectives. Moreover, students' perceptions toward this project indicated that they believed that the course was more practical than traditional instruction because during the process of completing the project they learned how to creatively use the multimedia and develop presentation skills, which can be helpful in their future workplace.

Third, the six categories found in this study revealed that this project-based business simulation linked student learning to synergistic knowledge development. Mu & Gnyawali (2003) defined synergistic knowledge development (SKD) as the constructive integration of students' diverse perspectives in groups. Xu and Yang

(2010) found that social interaction and a psychologically safe team environment were the main factors in synergistic knowledge development. In addition, the reported improved English speaking and presentation skills, teamwork, connection with the real world, and efforts made persistently in this study were responses to student reinforcement of knowledge, and confidence about their project quality as the benefits of synergistic knowledge development (Colbeck, Campbell, & Bjorklund, 2000; Klimoski & Mohammad, 1994). As Gnyawali & Grant (1997) indicated, complex and well-organized knowledge structures enabled group members to analyze the problems through diverse viewpoints, to search for solutions or alternatives, and select the best decisions. Thus, our findings show that synergistic knowledge development positively influenced student perceptions of their group's performance. As Bransford et al. (2000) observed, the more teachers display PCK in classroom, the more students developed synergistic knowledge.

This research, however, was limited in two respects. First, the number of participants was not large enough to be representative because this course was elective. Second, the business simulation was limited to campus, meaning that the students faced other students, faculty, and staff in school rather than the real consumers in their business behavior.

This study examined the relationship between a business simulation course and student learning. However, this study did not show significant information about the relationship between synergistic knowledge development and the business simulation performance through the project-based learning approach. This should be explored in future research.

References

- Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press.
- Colbeck, C. L., Campbell, S. E., & Bjorklund, S. A. (2000). Grouping in the dark—What college students learn from group projects. *Journal of Higher Education*, 71, 60-83. https://doi.org/10.1080/00221546.2000. 11780816
- Doughty, C., & Long, M. (2003). Optimal psycholinguistic environments for distance foreign language learning. Language learning and Technology, 7, 50-80.
- Edmondson, A. (1999). Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly*, 44(2), 350-383. https://doi.org/10.2307/2666999
- Eisner, S. P. (2011). Apprentice watch: Learning through reality TV. *Journal of College Teaching and Learning*, 3(9), 19-37. https://doi.org/10.19030/tlc.v3i9.1678
- Eskrootchi, R., & Oskrochi1, G. R. (2010). A study of the efficacy of project-based learning integrated with computer-based simulation STELLA. *Educational Technology & Society, 13*(1), 236-245.
- Fontana, A., & Frey, J. (1994). Interviewing: The Art of Science. In N. Denzin, & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 361-376). Thousand Oaks, CA: Sage Publication, Inc.
- Farley- Templeton, J. (1994). *The Focus Group: A Strategic Guide to Organizing, Conducting and Analyzing the Focus Group Interview.* Probus Publication.
- Gnyawali, D. R., & Grant, J. H. (1997). Enhancing corporate venture performance through organizational learning. *International Journal of Organizational Analysis*, 5(1), 74-98. https://doi.org/10.1108/eb028863
- Klimoski, R., & Mohammed, S. (1994). Team Mental Model: Construct or Metaphor? *Journal of Management*, 20, 403-437. https://doi.org/10.1177/014920639402000206
- Liu, C. K. (2014). Project-based ESP instruction: A process of collaborative authentication. In W. Tsou, & S. M. Kao (Eds.), *Resources for teaching English for specific purposes* (pp. 87-112). Taipei, Taiwan: Bookman Books, Ltd.
- Mu, S. H., & Gnyawali, D. R. (2003). Developing synergistic knowledge in student groups. *Journal of Higher Education*, 74, 689-711. https://doi.org/10.1353/jhe.2003.0040
- Morgan, D.L. (1997) Focus Groups as Qualitative Research. Sage Publications, Thousand Oaks. https://doi.org/10.4135/9781412984287
- Musa, F., Mufti, N., Latiff, R. A., & Amin, M. M. (2011). Project-based learning: Promoting meaningful language learning for workplace skills. *Procedia Social and Behavioral Sciences, 18*, 187-195. https://doi.org/10.1016/j.sbspro.2011.05.027

- Stoller, F. L. (1997). Project work: A means to promote language content. English Teaching Forum, 35(4), 2-9.
- Weterman, L., Weterman, F., & Hogan, T. (2011). Simulation and industry mentors as a pathway to learning 'near world' project management. Presented at the 8th Project Management Australia Conference. Sydney, Australia.
- Wolfe, J., & Luethge, D. J. (2003). The impact of involvement on performance in business simulations: An examination of goosen's "Know little" Decision-making thesis. *Journal of Education for Business*, 79(2), 69-74. https://doi.org/10.1080/08832320309599091
- Xu, Y., & Yang, Y. (2010). Student learning in business simulation: An empirical investigation. *Journal of Education for Business*, 85, 223-228. https://doi.org/10.1080/08832320903449469

Appendix A

Interview Question

- Q 1: What impressed you greatly after taking "Business English"?
- Q 2: Do you have any different perspectives about Business English before and after taking this course?
- Q 3: What do you think about the module courses and general courses?
- Q 4: Do you have any changes among language learning, learning skills, and professional knowledge after taking this course?
- Q 5: What do you think about the required oral presentation in this class?
- Q 6: What do you think about English for specific purpose? Which part do you like best in this class?
- Q 7: Can the course encourage you to accept more advanced courses in business English after taking this basic course?
- Q 8: What problems have you faced during this class?

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