

# EFL Learners' Perspectives upon Creating Contextual English for Specific Purposes

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## Abstract

The purpose of this study is to examine students' perspectives on taking the specific course entitled, Escort English, and reveal the effects of creating contextual English through the use of project-based learning techniques. The course was an elective two credit hours a semester and was offered two semesters consecutively in the Applied English Department at a technological university located in the center of Taiwan. It was the first semester while this study was being conducted. Thirty-two junior students participated in this course. In addition to attending the regular class meetings, students were asked to do a group project after school. Based on specific topics designated by the instructor, students needed to write a contextual dialogue and do role-play at a real or simulated location accompanied by a video making. After that, students shared their creative works and gave peer evaluation to one another in the class. In the findings, many students indicated that they had learned operations in the field of business and many useful vocabulary words and phrases relevant to the business which they had not learned from other courses taken previously. Most impressively, they claimed that they had learned the skills of making the videos by themselves. However, although all the students indicated that they had learned some English for specific purposes and became aware of this new knowledge which might be helpful for their future career because of conducting the extra group project, a number of the students did not take its subsequent course in the following semester. Student feedbacks complained that they spent too much time and efforts for the class. This implies that pursuing knowledge and English in specific fields is less important than engaging in easier coursework in students' studies.

**Keywords:** English for specific purpose, Project-based learning, Video making, Contextual

dialogue making, Student-center learning

## 1. Introduction

The course entitled, “Escort English,” was a brand new subject offered in the English department of a technological university where the study was conducted. When asked what they felt about the purpose of this course might be, most students kept silent, but one active student replied that the main goal of this course might be to train students to become tour guides with competent English speaking skills. The answer given was correct, but was narrow in definition. It inspired the researcher to explore how students considered the purposes of taking the course and what effects would result in if they were asked to create contextual conversation in a specific workplace. According to the explanation defined in Oxford English Dictionary Online, one of the meanings about ‘escort’ is defined as ‘a number of persons, or often a single person, accompanying any one on a journey for the purpose of protection or guidance, or for courtesy's sake’. Cambridge Dictionaries Online is defined as ‘to go with someone and show them a place’. And, another definition can be found in Dictionary.com as, ‘a group of persons, or a single person, accompanying another or others for protection, guidance, or courtesy’. Their meaning exactly reveals the purpose of offering this course in the English program.

One of the essential goals of the English department is to help the students reinforce their English abilities in overall competence so that they are able to deal with various kinds of jobs associated with English in the future. The objective of the new course, Escort English, reflected this intent. It was to provide students with the opportunity to learn relevant knowledge and acquire skills in specific, pertinent professional fields, such as hosting campus tours, acting as tour guides, acting as professional escort interpreters, and serving as attendants and docents in foreign exhibitions. In addition to refining their abilities of becoming fluent in oral English skills and adept at problem-solving, the most important task students will face in the offered course was to involve learning how to prepare work and tour schedules in advance, and their attendant written and oral texts. For example, while conducting a campus tour, knowing how to fully depict the administrative and academic departments to their audience is essential. In addition, to be a competent professional tour guide, it is necessary to have good command of how to meet English speaking tourists’ requirements, such as making reservations for hotel rooms and booking air tickets without any difficulties. Also, as an escort interpreter, s/he has to prepare written materials related to specific themes in advance, and learn how to use the necessary tools and aids such as notebooks and prompts. If s/he is to act on behalf of a company at a product exhibition in a foreign country, s/he not only has to arrange demonstration details well before the exhibition, s/he also needs to know how to promote her/his company’s products effectively to foreign buyers. In this, the researcher designated various kinds of situations for the students to engage in, such as serving as campus and museum tour guides, being as an escort of a secretary accompanies the employer, or acting as the attendants of formal exhibits. The students were asked to complete group video projects concerning these roles that incorporated appropriate contextual English speaking practices.

Many English textbooks for specific purposes usually focus on one specific area, such as tourism, hospitality, trade show, or business English, but few address such areas in an integrated package form. The contents of Escort English include a wide range of topics employed in domestic and foreign countries for various purposes. Hence, it seems that the ready-to-use textbooks do not contain entire materials to real world's purposes. Therefore, in this study, other than the regular two-hour contact hours weekly with the teacher's lecturing, the students were asked to conduct one group video project. They were asked to create a script in English dialogue involving a specific workplace. They were also required to perform a show with the script they wrote by way of a demonstration video. The teacher/ researcher attempted to discern students' perspectives about the course and observe what effects that a course in contextual English at workplace, supplemented with a video, could be demonstrated.

## 2. Literature Review

One of the tactics depicted in *the Art of War*, an ancient Chinese book about strategies of war, is that knowing your competitors as well as yourself is one excellent way to ensure victory. Many business persons consider it as an important motto to use in the achievement of successful outcomes. The dictum can be useful as well when considering ESP, English for specific purposes, course design. That is, if English majors fully realize what kinds of English specific workplaces will require, and gain appropriately targeted English instruction, they can better enhance their understanding of the "competition" for a potential employment opportunity and achieve more satisfactory employment prospects. Therefore, it is important for teachers to provide courses which correspond to students' future careers, in the real world needs. What, then, is the essential purpose of the ESP course? And how does the ESP course differ from courses in general English? According to Cunningsworth (2002), what makes ESP courses distinct from general English ones lies in the fact that ESP is goal-oriented and based on the awareness of learners' needs. Gao (2007) stated that only based on learners' needs and their target language proficiency, the teacher can determine goals and objectives of the course, a process which involves consideration of specific functions, terminology comprehension, and the abilities required for future workplace communication. However, Gao also indicated that it is unrealistic for the students to predict which specific skill their future jobs require.

Faiza (2010) discussed the importance of knowing learners' needs and matched their needs with curriculum, material and teachers' training. The needs analysis conducted in the research among the fourth-year students in the Department of Biology. The results clearly demonstrated that the students considered reading and listening skills for a short term goal since the students of Biology studied English to understand scientific texts for their theses or research papers and also for translation and examination marks, whereas students also needed speaking for long term goal since they were aware about the importance of the English language for their post-graduate studies or for their future career. In addition, Dudley-Evans and St. John (1998) claimed that needs analysis is neither unique to language teaching nor within language training but it is often seen as being "the cornerstone of ESP and leads to a very focused course" (122). In their study, Khan, Ghulamullah, Mohsin, Dogar, & Awan

(2011) used two instruments to find out the needs of target situation, learners' needs, wants and their lacks. Firstly a questionnaire was used as an instrument to get information. The second tool to get data was semi structured interview which was used to collect the qualitative data. It was indicated that all the learners were educated and good in general English but for their business they needed training in specific fields. In addition, although speaking and listening functions were performed mostly in their business yet the development of some specific reading and writing functions could also play an important role in promoting their business. It is important for teachers to take learners' needs into consideration when they are conducting ESP courses. However, without actual and relevant workplace experiences, are instructors able to be trained to be truly qualified ESP course designers?

In the study, Chen (2000) presented an ESP self-training model as a possible solution to the above mentioned problems. A case study applying action research techniques was conducted to illustrate how a general English teacher, even in the absence of supervision, could develop ESP expertise through reflecting on and improving the performance of authentic teaching tasks in the ESP classroom. The study results confirmed that by systematic action research procedures entailing continuous participation in situational decision making and professional involvement in the disciplinary culture in which the learners in question communicate, an ESP practitioner could conceptualize appropriate notions for teaching approaches. Also, Shih (2012) established a blended model combining face-to-face (F2F) instruction for English for Specific Purposes (ESP) course: English for Hospitality and Tourism. Forty-four English-majored sophomore students enrolled in an elective ESP course named "English for Hospitality and Tourism" at a four-year public university in southern Taiwan. The results revealed that the model could contribute to learning effectiveness and satisfaction of an ESP course when the course was well planned, the equipment was sufficient and supportive as well as students were familiar with related applications. Most importantly, peer and the instructor's feedback, the characteristics of the blog, and interesting material, were major factors that motivated students to learn effectively and enhanced their satisfaction with the course.

In this study, because the contents of the published textbooks did not provide the materials which corresponded to learners' needs, the teacher/researcher attempted to help students explore specific English used at specific workplaces by means of creating contextual conversation materials. In this, it was similar to Kuo's (1993) suggestion that tailor-made materials could be used as either the supplement or the replacement of certain parts when necessary. In addition, Saraceni (2003) stated that materials should be based on authentic texts with authentic activities and tasks so as to expose learners to some real input. Gao (2009) also agreed that "Material development should explore learners' authentic needs in the target contexts, take the learning environment into consideration, and provide tasks and activities for a real-life communication purpose (36)".

In this study, the teacher/researcher will employ the project-based learning strategy to help students explore the specific disciplinary subjects via creating a script in English dialogue involving a specific work place and presenting the whole dialogue in a video. Many researchers (Chen, 2012; Stoller, 2007; Thomas, Mergendoller, & Michaelson, 1999)

designed projects involving complex tasks, based on challenging questions or problems, that involved students in design, problem-solving, or decision making. In addition, they gave students the opportunity to work relatively autonomously over extended periods of time, which culminated in realistic products or presentations. For the students involved in the project work might be able to develop their knowledge on subject matter

In order to explore students' perspectives upon creating contextual English for specific purpose, three research questions are proposed:

### *2.1 Research Questions*

1. What will students learn from the specific subject course?
2. What perspectives will students have in the process of creating contextual English for specific purpose?
3. What achievement will students reach in the process of conducting their projects?

## **3. Methodology**

### *3.1 Participants*

Thirty two students took the Escort English course and participated in this research project. Except for one student from Electrical Engineering program, all of the students were English majors. This was the first time that the course was offered by the English department. It was a two credits selective course. In addition to attending regular meetings in the classroom, students were asked to conduct one after-class group project and share their works with one another at the end of the semester. They were encouraged to form the group by themselves so that it might be easier for them to perform the group projects smoothly. Each group was limited to two to three members. There were thirteen groups in total.

### *3.2 Instruments:*

#### *3.2.1 Survey Questionnaires*

Two open ended questionnaires were given in the beginning and at the end of the study respectively. There were four questions in the first questionnaire. The questions were: 1) the reasons for taking the course, 2) the realization of Escort English applied to relevant fields, 3) gaining confidence in being a campus tour guide, and 4) career interest in acting as an English interpreter. When the participants had completed their group project, they were given the second questionnaire. Three questions were asked: 1) What have you learned in the process of designing and creating the group video project? 2) Which method do you prefer in the completion of your school projects, working as an individual or working in groups? 3) Do you think that making the contextual simulated video helped improve your English?

#### *3.2.2 The Group Project Conducting*

Students were asked to complete a group project at the end of the semester. Based upon what the English department foresees as the English skills that prospective jobs are likely to require, the teacher/researcher proposed several topics for students to select freely to form the

basis of their group project.

Thirteen groups were formed by thirty two students. And, the various topics suggested and the titles given by groups included:

1. Chinese New Year – Hosting an exchange program student
2. Campus tours– Being a guide for a foreign visitor
3. Overseas business visit – Being an attendant secretary
4. Museum tour – Being a tour guide
5. The shoe department – Being a shoe shop salesperson
6. Sightseeing – Being a narrator for an antique train station
7. Car show – Being a car sales dealer
8. Blockbuster –Being a foreign customer in a tape rental shop
9. Trade show – Merchandise demonstration
10. Taiwanese beverage – Bubble tea sales
11. Breakfast eating establishment – Ordering food
12. Food stand – Introducing sidewalk food
13. Night market – Taiwanese cuisine tasting

The students were asked to create a script in English dialogue involving a specific workplace. They were also required to perform a show with the script they wrote by way of a demonstration video. They were allowed to borrow video cameras from the departmental office for their filmmaking.

### *3.3 Research Procedure*

At the first meeting, the teacher/researcher explained the purposes of Escort English, when and where students could expect to make use of it, and how to create a contextual English simulation involving a specific workplace. After that, the students were given the first questionnaire to determine their understanding of the course. At this stage they selected their fellow group members and picked designated topics that were displayed on the blackboard. Straight afterwards, they were asked to select a contextual location, create the dialogue scripts, and construct the film using role play. After having several practices in front of the camera, they submitted their finished efforts, the contextual simulated video, to the teacher. The teacher/researcher played the videos at the end of the semester. The students then conducted the peer and self assessment for each video. This was a student-centered learning style: students created their own stories, resolved problems as they arose, engaged in role play, made the videos, and shared their videos with one another.

### *3.4 Data Analysis*

Based on the two questionnaires and the video tapes students made, the teacher/researcher compared the feedback reflected by the participants and as well as the language presented in the videos in order to explore students' perspectives of the course and the effects of refining contextual English for use in specific workplaces.

## **4. Findings and Discussions**

### *4.1 Findings*

#### *4.1.1 Students' Perspectives of Taking the Escort English Course*

Based on the first questionnaire, the first question about reasons for taking the course can be divided into three categories: earning credit hours, learning the practical and useful English, and improving the English speaking ability. It is quite natural for students to take courses for earning credit hours. All students must fulfill the requirement in finishing minimum credits to graduate. Therefore, there were senior students taking this course. They indicated that they needed to make up for their insufficient selective credit hours. A number of students expected to learn some useful terms and knowledge, in a specific field, which they might need in the job market in the future. Most students positively believed that taking the course would help them improve their English skills. As for the second question, all of the students realized that Escort English can be used in a wide range of fields, such as serving as interpreters in business occasions, as tour guides, or as receptionists hosting foreign visitors. It indicates that students could understand the objectives of the course that they were taking after the teacher/researcher explained it at the first meeting.

In the third question, although most students expected to improve their oral skills and disciplinary knowledge, 16 out of 32 students felt that they had no confidence in their abilities in giving campus tours. Among these, four students indicated that they had no interests in being tour guides. Apparently they simply hoped to improve their oral English speaking abilities but not for purposes of speaking in official or public occasions.

#### *4.1.2 Experiences in the Process of Conducting the Required Projects*

In the final questionnaires, the students were asked what encounters they had had in the process of conducting their group project and how they liked to work on the project collaboratively. All students indicated that they had more stress and heavier workload than other courses they had taken because they had to do both creating a script in English dialogue involving a specific workplace and performing a reality video show with the script they wrote by themselves. In addition to designing the contextual dialogue, they were required to employ certain software to make videos. However, many students indicated that they had learned many useful terms and vocabulary words, in a specific work place, and they also knew many business terms which they had never learned before. They also indicated that they felt nervous and embarrassed to talk in front of the camera in the public places; however, they still practiced it many times in order to produce a satisfactory project outcome.

The question about preference in working as an individual or in groups, only six students

stated that they preferred individual to group work. The reason is that it was hard for them to have mutual time to work together in conducting the project simply because everyone had different schedules. Most students however, felt that they had a good time working with their peers. All group members reflected that they were embarrassed to give the performance in front of many strangers while they were making the video. However, they still needed to implement the impossible mission by means of working together. It is one reason that most students preferred working in groups. For instance, one group selected an antique train station and their theme was to introduce the history of the station to their American friends. One student acted as a guide and gave the performance and other group members as American visitors and asked questions. They felt embarrassed, especially the student who acted as the guide was extremely nervous, because there were many tourists staring at her, during performing the narration of the antique train station, when passing by. However, she bravely conquered her uneasy and nervous mind and achieved her goal by repeatedly recording the parts they had designed. Thankfully, she appreciated her group members' support so that they were able to complete their project together. At the video sharing meeting, all of the students successfully created their DIY video making projects. They also confessed that making the contextual simulated video helped improve English more or less. Quoted from a student's remark, "it's really very interesting to make the video tape together. I had never thought that we could get together to have brainstorms the dialogue for the contextual English, and to look for the place to record and play roles. When I was watching the video we created, I was really touched."

#### *4.2 Discussions*

##### *4.2.1 The Effects of Creating Contextual English as Supplemented with Video Making*

The purpose of this study is to explore students' perspectives of the course, "Escort English," illustrating the effects of contextual English creation through the video making. This study points out that, for most students, the main purpose of taking this course was to improve their English speaking ability and learning some disciplinary knowledge and terms to be used in potential workplaces. In the process of making the video, the students indicated that they would check with relevant information for their topic while they were designing their English dialogue. In this, they felt that they would learn real and practical terms that might be used in an actual workplace. The progress on English performance was presented in the feedback questionnaires and the video they created. In short, most students reflected that they had learned more than they expected. Several students' feedback is quoted as follows.

"It's helpful in my oral English. Before performing in front of the camera, I have to write the dialogue, practice and memorize the lines of the drama."

"Making genuine conversation is more useful and interesting than practicing the conversation written in the textbook."

"Video making cannot be done successfully at one time. We need to revise it repeatedly, so as the conversation making in the video. By means of repeatedly rehearsing, we can improve our speaking ability"

“I have become more confident to stand in front of the camera to have the role play.”

“Now, I realize more about this subject which can include attending the trade shows, demonstrating the company’s products, escorting the boss to go overseas, and hosting foreign friends”

“At the beginning, I felt this course is very difficult because I never take this kind of course before and had no ideas about it. But, when I have learned many useful words and sentences which can be used in real life and made the video in the real place, I feel that I have learned a lot.”

“Making the video not only can help me improve my oral skills, it also can give me ideas of performing appropriate manners”

“I have tried a lot of specific software, such as CorelDraw Graphics, Movie Maker, and Movie Director to complete my video project.”

“I have learned how to make a film and work with partners.”

It reveals apparently that many students had earned the concepts that English, not only one of the coursework conducted in the classroom, it also could be used in various areas after having peer review other group’s projects. In the process of classroom learning and physical experiences, their English competency improved. In this, they could complete their projects successfully. In addition to reinforcing oral English skills, many side benefits were generated. In particular, three main benefits appeared in each group. This is illustrated in the following.

#### 4.2.2 The Three Side Benefits along with the Contextual English Creation

*Developing autonomous learning ability.* In general, English major students lacked of the knowledge about employing technological appliances in the study. In order to reach the requirements of making a video with sound and subtitles, students had to find appropriate software and learn how to use it. The questionnaire points out that the students from different groups made use of different software. They spent significant amounts of time revising their videos. Thus, they became more familiar with using the specific software program which they never touched it before. When they were asked verbally what the most impressive skill they earned, many of them replied enthusiastically, “it’s video making!” Upon working on the group project, students had developed their own autonomous learning ability without taking any course. This is one of the core values of college education.

*Strengthening problem solving skills and a sense of responsibility.* In the process of conducting their group projects, none of the students came to the teacher/researcher to ask for help. They knew that, like them, the teacher/researcher had less experience with the software. Instead, they often asked friends or students from other departments to teach/share them how to use it. While they were designing their conversation dialogue, they would often gain access to the Internet in order to search for the information and to make sure that they would deliver authentic stories. In the process of making the video project, they gradually increased their problem solving skills and raised their individual feelings of responsibility.

*Building consolidated and collaborative work skills.* As mentioned previously, most of the students preferred group to individual work when conducting the designated tasks. At the end of the semester, students were asked to do the self as well as peer assessment about their personal contributions to the group project. The scale rank was from 1 point to 10 points. In the self and peer assessment, the highest amount of points awarded was 10, and the lowest was 7. Interestingly, more than half of the students (19) gave themselves lower points than their peers gave them. And, 11 students earned the same points on both self and peer assessment. Only two students awarded higher points to themselves than their peers. This appears that most students appreciated their peers' engagement in the group work. It also suggests that most of them had pleasant collaborative relationships in the process of conducting their project.

## **5. Conclusion**

All students had successfully completed one excellent group project during the semester. Before conducting the project, many students worried that it was too hard for them to accomplish this mission successfully. However, the outcome they achieved was beyond their expectations. Students integrated previous courses skills, such as English Writing and Conversation to create their contextual English scripts combining with autonomous learning of the video making program to present the contextual English dialogue in their completed videos. They not only improved their English speaking abilities, they also learned how to perform appropriately in front of the camera in the public. They were nervous initially but gradually became more confident to talk in front of strangers. In addition to becoming familiar with using certain software, most importantly, they had developed the autonomous learning ability and learned the skills of problem solving. Before working on the project, all students had not taken any course about movie making. In order to accomplish the requested tasks, they spent much time on investigating which software they could use and asked others for help. That is why when they were asked what they had learned the most in this subject course; they responded, with much conviction, "the video making". In this, students not only experienced contextual conversation creating and improvement upon their English abilities, they also learned individual responsibility, problem solving, and independent attitudes to face unforeseen challenges. However, although all the students indicated that they had learned more than other courses that they had taken previously, a number of them did not feel that they might enroll in a similar course, were it offered in the subsequent semesters. The heavy workload of such course offerings was the principle reason which discouraged these students from wishing to pursue another course offering advanced skills on developing contextual conversation in the workplace. If students are serious about conducting their group project at each stage, this may be sufficient for them to be able to benefit from a course that is offered for only one semester. However, if students intend to reinforce their professional knowledge on specific disciplinary field, they had better take the further course offered in the subsequent semester since they had earned the basic knowledge after one semester's engagement. Generally speaking, to know how to do it is one issue; to be familiar with doing it is another. Students might earn English skills while they were taking the course. However, they might become unfamiliar when times passed.

Theoretically, the main task for English major students is that they are able to skillfully deal with situations related to English in their future career. Being EFL learners and situated in the monolingual environment in Taiwan, mostly, students have rare opportunity to employ English except in the English classrooms at school. In this, the teacher can designate practical mini after-class projects for students to work on and have more class discussion sections for students to share their experiences and difficulties on their projects. As such, they have more opportunities to practice English. After all, practicing makes perfect is a fact. Under the supportive mode; hopefully, students may change their attitudes of avoiding courses with heavy workload and bravely taking the challenges the teacher requests.

## References

- Cambridge Dictionary. (2015). Retrieved from <http://dictionary.cambridge.org/dictionary/british/escort>
- Chen, T. Y. (2000). Self-training for ESP through action research. *English for Specific Purposes, 19*, 389-402. [http://dx.doi.org/10.1016/S0889-4906\(00\)00008-9](http://dx.doi.org/10.1016/S0889-4906(00)00008-9)
- Chen, A. H. (2012). Integrating Project-Based Learning Activities into a Pedagogy Course, Selected papers from the 2012 international conference on language, literature and teaching (pp. 28-42). Taichung, Taiwan
- Cunningsworth, A. (2002). *Choosing your coursebook*. Shanghai: Shanghai Foreign Language Education Press
- Dictionary.com (2015). Retrieved from <http://dictionary.reference.com/browse/escort>
- Dudley-Evans, T., & St. John, M. (1998). *Development in English for specific purposes*. Cambridge: CUP
- Faiza, H. (2010). Conducting a needs analysis for an ESP course design: The case of fourth year students of Cellular and Molecular Biology. *The International Journal of the Humanities, 8*(9), 77-97
- Gao, J. (2007). Designing an ESP course for Chinese university students of business. *The Asian ESP Journal, 3*(1), 97-106.
- Gao, J. (2009). ESP material development in Chinese universities: Problems and solutions. *Hong Kong Journal of Applied Linguistics, 12*(1), 29-44.
- Khan, T. M., Ghulamullah, Mohsin, M. N, Dogar, A. H., & Awan, A. S. (2011). Needs analysis of English for occupational and specific purposes. *International Journal of Social Sciences and Education, 1*(4), 632-643.
- Kuo, C. H. (1993). Problematic issues in EST material development. *English for Specific Purposes, 12*, 171-181. [http://dx.doi.org/10.1016/0889-4906\(93\)90017-I](http://dx.doi.org/10.1016/0889-4906(93)90017-I)
- Oxford English Dictionary (2015). Retrieved from <http://www.oed.com/view/Entry/64311?rskey=ThGLOx&result=71220#>

Saraceni, C. (2003). Adapting courses: A critical view. In B. Tomlinson (Ed.). *Developing materials for language teaching* (pp. 72-85). London: Continuum.

Shih, R. C. (2012). Integrating blog and face-to-face instruction into an ESP course: English for Hospitality and Tourism. *TOJET: The Turkish Online Journal of Educational Technology*, 11(4), 204-209

Stoller, F. L. (2007). *Project-based learning: An effective means for promoting purposeful language use*. Selected papers from the sixteenth international symposium on English teaching (pp. 139-152). Taipei, Taiwan

Sun Tzu. (was written around 500 B.C.). *The art of war*.

Thomas, J. W., Mergendoller, J. R., & Michaelson, A. (1999). *Project-based learning: A handbook for middle and high school teachers*. Novato, CA: The Buck Institute for Education.

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