Needs Analysis on ESP Course for Business and Engineering Students in a Chinese Local University

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Abstract

The current study tends to discuss the issue of concocting a needs analysis for ESP course which may provide useful information for the curriculum design of ESP course for business and engineering students in a Chinese applied university. The author used close-ended questionnaires to investigate the special needs of ESP course for students major in business and engineering and tried to indicate whether there is a correlation between students major and their specific needs in ESP course as well as whether the proficiency of English correlates with their needs in ESP course. Questionnaires were also used to collect data from different perspectives like instructors, employees, and employers in relevant industries, trying to explore whether there are different beliefs about ESP needs among different participants.

Keywords

ESP, Need Analysis, Business and Engineering Students

1. Introduction

"Applied university" is an exploration of the new mode of higher education combined with a new level of higher vocational education. In 2015, Ministry of Education of China clearly stated the direction of higher education reformation as "more than 600 general universities and colleges will gradually shift to applied technology-based universities, accounting for 50% of the total number of colleges and universities." (MOE of China, 2015). Applied universities aim to cultivate skill-based graduates who can integrate into the economic and social development in the local region. Such universities focus on establishing cooperative relations, link up with the innovation and development of economic development

zones and industrial agglomerations, and meet the needs of industry enterprises in personnel training and technological innovation.

ESP course is a subcategory of English teaching, but with many specialized features that yield to different subjects. ESP courses are usually provided for the learners who have equipped with the essential knowledge in English, and the purpose for them to learn ESP is to be equipped with some professional communicative skills and ability to perform in job-related activities (Rahman, 2015). ESP courses emphasize the actual use of English in real working environment rather than learning grammar and language structures. The distinction between ESP and EGP (English for general purpose) lies in that ESP cannot be taught solely without concerning about the real language use environment. The proportion or importance of the four skills in English should be determined by the needs analysis.

Baoding University is a newly selected experimental unit for switching to applied university which means the government encourages students from this university to find jobs in workplace after graduation instead of continuing further academic study. The English course provided by Boding University should be based on the special needs of practical use in different local workplace like business and engineering as well as the students' needs. Before the change of curriculum and course design, a need analysis is very necessary to collect data and information from all the aspects get involved. Based on the situation, this study plans to investigate: 1) What is the specific needs in ESP for students in Baoding University major in business and engineering? 2) Is there significant correlation between students' major and their needs for ESP? 3) Is there significant correlation between students' proficiency in English and their needs for the four skills being instructed in ESP in different majors? 4) Are there any different perceptions in ESP needs among students, instructors and other stakeholders?

2. Literature Review

2.1. ESP Needs Analysis Model

Needs of learning plays a critical role in affecting students learning motivation, attitude and outcome (Rahman, 2015). Therefore, needs analysis is the initial stage in the procedure of designing any kind of language courses. Brown (1995) explained that needs analysis in language courses as identifying possible language skills the learners need in the target language environment when they are asked to fulfil certain purpose in professional tasks. Rossi, Lipsey and Freeman (2004) defined the term as the method by which the researcher explores the specific needs for a programme and the most suitable content should be provided.

As the initial phase of any ESP course, researchers in this field developed different kind of models to conduct the analysis (McDonough, 1984; Robinson, 1991; Jordan, 1997; Dudley-Evans & St. John, 1998). To some extent all the mentioned models contain some of the basic needs analysis components. The model developed by Dudley-Evans and St. John (1998) is considered to be the most in-

tegrated and holistic model for exploring the needs for ESP course (Rahman, 2015).

This model in **Figure 1** as presented above emphasizes and covers all the concepts in the investigation of learners' information, lack, and needs concerned both learning in the course and language use in the workplace. Liao (2009) designed a 50-item questionnaire to explore students understandings about how important the four language skills are needed at work, the result conformed that the needs for ESP course may be affected by variables like "academic standing, future goal, major area, and learning experience" But Rahman (2015) argued that the ideas of other stakeholders in the professional area should also be taken into consideration. Bacha & Bahous (2008) reported that teachers and students have different thought about how importance of writing skills as well as other language skills the author suggested joint efforts from all the concerned sides to develop proper materials to meet students' real language needs in workplace. Different groups of people may have different perceptions about language needs in the working context and inclusion of all sides guarantee a full understanding of the specific language needs and in turn facilitate the material selection and course design in ESP.

2.2. Needs Analysis of ESP Course in Practice

In 2007, Taillefer conducted a large-scale ESP needs analysis for business students in France aiming at identifying specific purpose of language use in workplace and the washback of language needs on the design of ESP course. He included business students, economics teachers, language teachers and business graduates as participants. The data from participants reported similar ideas in the following aspects: first, the real language use in workplace calls for more literacy skills than oracy skills. Kaewpet (2009) also stated similar finding in his study about Thai civil engineering students' needs for English, responses from the participants showed that reading and writing ranked the top two most essential skills at work. Second, most of the participants thought it is more difficult to
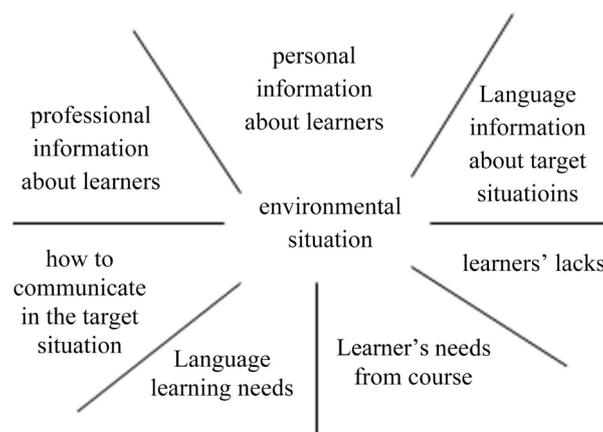

Figure 1. Model of the need analysis for ESP course.

acquire proper racy skills to meet the needs at work. Third, both present students and the graduates thought they had difficulties in learning English; there is a big gap between the required competence and the actual level they felt they reached. Result from another study conducted for engineering students in USA provided consistent evidence that most students are not satisfied with what they learnt of English in the classroom (Tesema & Woldemariam, 2016). Fourth, most of the students expressed the needs of practice and training to make progress in their abilities in all the four language skills. And the most desirable training is for speaking. Fifth, most of the students reported there is a close correlation between language competence and finding the first job which provide evidence for previous studies like Crosling and Ward (2002) reported that for specific the oracy skills were more necessary for recruitment, job success and promotion.

Previous studies revealed that students' proficiency level may affect their perception of language needs at work significantly, in Taillefer's (2007) study the difference can be found between present and graduate students lies in: first, present students rank less frequency than the graduates on listening writing and reading skills. Second, most of the graduates preferred integrating language teaching in to economics course which is consistent with instructors' opinions, but only about 35% undergraduates held similar ideas. Third, although most students agreed that training should be organized based on students' competence level, about 40% students thought project-based training is better with the majority of 60% students prefer the traditional lectures and seminars. Contrast view is from Cowling (2007), after a research of Japanese students needs for ESP course, he suggested that a content-based and notional-functional syllabus would be proper for ESP course.

Some other researchers focused on the washback effect of data collected from the employers and employees in the specific field. In Kaewpet's paper (2009) he also analyzed data from the boss and current engineers and find inspiring different ideas and suggested the different perceptions about English needs must be all included in curriculum design. Studies conducted by different researchers in different setting about different perspectives in the needs of English in the specific field are somehow contradictory with each other which indicate that for needs is driven by individual's personal understanding toward the subject, it is possible to get totally different result with different participants. There for needs analysis for the students in Baoding University is necessary and essential at the initial part of teaching reformation and ESP course design.

3. Research Design

This study tries to explore the exact needs for different majors in Baoding University and the relationship between major and needs along with language proficiency and needs for ESP. Besides, the author wants to know whether participants from different aspects have different understandings about language needs

in workplace. There for the null hypotheses should be there is no relationship between students need in ESP and their majors and language proficiency; there is no different ideas in needs for ESP among groups of students and other involvers namely instructors, employers and employees. Alternatively, the hypothesizes is that there is some kind positive or negative correlation between students' needs for ESP and their majors as well as English proficiency; there do exist different perceptions of ESP course among different groups of participants. As stated previously in the literature review part, many studies conducted about needs analysis for ESP have shown that there is difference cross major and language proficiency in different settings and different groups of participants. So study about the relation and difference in the context of Baoding University is necessary for English reformation. In order to prove the alternative hypothesizes stated earlier the author will conduct a survey-based investigation by using questionnaires in Baoding University. According to Mackey et al. (2006), survey aims to collect information about participants' perceptions, beliefs or ideas which cannot be easily accessed by merely observation of performance. There are two commonly used types of survey namely, questionnaires and interviews. By comparing these two, questionnaires are suitable for collecting quantitative data from a great number of people through asking the participants to respond to statements or questions by selecting an offered option. According to Wagner (2015), questionnaires are easily administrated and effective for large-scaled analysis. The objective score collected from questionnaires can be analyzed quantitatively. In this study the author wants to collect data from six groups of participants about their ideas and perception of ESP with total number of more than 500 people, questionnaires are suitable to serve the purpose.

4. Research Method

4.1. Participants

Aiming at gaining an integrated view about the language needs in workplace, the samples in this study would include as many as 6 groups namely: present students, ESP teachers, teachers who teach business or engineering, incoming graduates, employers, and employees. Brindley (1989) claimed that the clarification of needs to some extent is based on personal concept and interpretation. So, a sufficient and objective needs analysis should include as many as the participants who are involved in the field. Come to the research questions being explored in this study, perspectives from the two main language use settings: workplace and language learning context should be included. After a carefully analysis of the data the findings from this study can provide valuable information for curriculum design in Baoding University.

According to Brindley's idea (1989), Kaewpet (2009) proposed three principles in selecting proper participants for needs analysis namely: "purposeful sampling; multiple perspectives; and having a suitable 'insiders' and 'outsiders'." (p. 269) Purposeful refers the sampling should be representative and informative

in the real condition. In this study the participants should include the instructors who get involved in ESP course because their understanding about the course can strongly affect students' performance and achievement in ESP course. Other employers in the industry can provide more objective opinions about the exact picture of English use in the working context. The authentic information of English needs is one of the most valuable and trustworthy resources should be considered when decide the ESP program.

The researcher chooses third grade students and fourth grade students as samples in this study for several reasons: after two years of learning in English for general purpose (EGP) third grade students have already acquired the basic competence in the four language skills and have formed a self-assessed view about their English proficiency. With the increasing demanding of professional courses, they may notice the insufficient language ability may affect their study in other course and in turn activate their needs for ESP. Similarly, for the fourth-grade students who have finished their internship in relevant field, their working experience can reveal their deficiency in language use in actual workplace. Their feedback would be very valuable and meaningful for the reformation in ESP course. In order to achieve representativeness, I tend to include all the students in these two grades (about 400 in total) with consideration that some of the students may fail to complete the questionnaire for various reasons. For the question of how many questionnaires can achieve high validity different researchers have different opinions. I will try to ensure no less than 85% of the questionnaires can be collected. Similarly, all the teachers who teach professional courses and the on-planning ESP course will also be included in the survey to contribute for the needs analysis of the course.

In order to complete the overall perception about language needs in actual use, the author plans to collect data from employers and employees in these two industries. As mentioned in the introduction the graduates from Baoding University mainly find their jobs in local companies and factories, for the sake of reliability and validity all the participants in these two groups are selected from those in the same geographical zone or those which are enrolled in the career fair held by the university. The author writes email to all the companies and factories on the checklist, asking for permission of taking part in the questionnaire first and then sends questionnaires to relevant employers and employees. The acceptable recovered questionnaires are lower than the students' group for some of the companies are not willing to answer questionnaires.

4.2. Instrument

In this study the author employs a set of questionnaires for different sample groups. This set of questionnaires adopted from several previous questionnaires which are concerned about relevant issues and then modified by the author. Those questionnaires include Taillefer (2007), Liao (2009), Crosling & Ward (2002) and Kaewpet (2009). The author will extract the common features from

those published questionnaires with modifications for the specific characteristics in the situation of Baoding University. As having been applied in other published studied the questionnaires are supposed to be tested and reviewed, the external validity and construct validity can be confirmed. Before the actual data collection, reliability will be tested through SPSS, those items with reliability lower than 0.8 will be revised or deleted.

The questionnaires contain several parts: the first part is devoted to collecting demographic information from participants namely gender, academic standing, major (or occupation). Questionnaire for the students will also include language proficiency level like score in CET4/6. The second part will be different according to different sample groups. The content will include students' general needs for the ESP course, specific needs for language skills, a revised version about the requirement for four language skills will be provided to the instructors, employers, and employees. Other topics will be included are students self-assessed language proficiency; the relationship between language competence and finding the first job; frequency of different types of communication in workplace; to what extent do they view the importance of the four language skills in wok; Suggestions for future university instructions in ESP. The questions in the questionnaires would be like this:

General needs in ESP:

1) Please rank the importance of the four language skills in work place according to your own understanding.

	1. not important	2. mid-level importance	3. Very important
Listening:	○	○	○
Reading:	○	○	○
Speaking:	○	○	○
Writing:	○	○	○

For the accuracy and convenience of participants' response the translated Chinese version of the questionnaire will also be distributed.

Thanks to the abundant previous studies the set of questionnaires with various and sufficient contents which adapted in this study would help the researcher collect data from all perspectives and come up with valid and reliable result. The data collected by investigate students general and actual needs in language skills will provide evidence to draw the specific language use for different major and illustrate the relationship between major and language needs, the different response from students in different groups may show the different perspectives among students. The contrast between what the students are taught in classroom and what they need in workplace may provide insight for the future ESP curriculum design. The comparison among the six groups may indicate the different concept and ideas about language use in workplace and further en-

hance the reformation of ESP course.

5. Data Analysis

5.1. Student Needs

From the data, it can be seen that with the continuous development of today's society and the greater demand for professionals, ESP is needed by all students, Teachers and schools should set up personalized ESP courses according to the orientation of the school, professional development and the future needs of students.

5.2. Teacher Allocation

In the dimension of teacher allocation, the questionnaire reflects that students need teachers that should not only have English teaching experience, but also master certain professional knowledge. However, the university cannot satisfy the students' needs at present. The common problem of English teachers is that although they have rich basic knowledge of English, they have limited understanding of various professional knowledge. It can be seen that most teachers cannot meet the basic requirements of ESP course. The university should give more support to teachers' further education, provide more opportunities and platforms for teachers' further improvement, and promote exchanges between universities.

5.3. Curriculum Design

In terms of curriculum, students are looking for personalized courses, hoping that the teaching content can meet their own needs to the greatest extent. Universities can try to open a variety of elective courses in the fourth or fifth semester, requiring students to choose a certain score of courses, while completing the teaching task, it can also better adapt to the individual needs of students.

5.4. Assessment Method

As the teaching content of ESP course is different from that of EGP, the assessment method of ESP course is also different. Most learners also think that the assessment of ESP course should not only focus on the basic knowledge of English, but should truly reflect the learners' ability in professional English. According to the characteristics of different majors in different genres, the focused assessment can be carried out. The targeted assessment results can test the syllabus, teaching materials and teaching methods, and guide the direction of ESP teaching.

5.5. Teaching Method

It can be seen from the statistical results that most students still hope that the teaching methods can be more diversified to avoid the boring traditional grammar translation teaching methods. In this way, the students' participation is very

low and the learning efficiency is not high. Students hope that teachers can focus on the explanation of reading materials and professional vocabulary related to the major, fully reflecting the characteristics of ESP linked with the major. So that students can acquire English knowledge as well as getting enough ability training and improving English output ability. In the process of teaching, teachers should pay attention to students' individual differences, understand students' emotion, self-esteem, anxiety and other factors, and teach students in accordance with their aptitude.

5.6. Textbook Selection

In the selection of teaching materials, the needs of students are more practical. In view of the existing students' English level, the university does not need to choose excessively professional English teaching materials. These teaching materials are difficult for students with poor English ability to understand, and even many teachers who lack professional knowledge are also difficult to deal with such teaching materials. Based on the extensive and objective study of the university's target, professional needs and students' level, the university should make appropriate adjustments according to its own characteristics on the basis of the original textbook, and use the textbook pertinently.

6. Conclusion

The significance of this study is to provide an important basis for the setting and teaching practice of College English ESP course in this university, although students' individual needs are highly subjective and unstable, However, under the guidance of learner cantered teaching philosophy, the research and analysis on the needs of ESP course for non-English majors can promote the college English curriculum, the revision of syllabus and the promotion of college English teaching reform in this university.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Bacha, N. N., & Bahous, R. (2008). Contrasting Views of Business Students' Writing Needs in an EFL Environment. *English for Specific Purposes, 27,* 74-93. https://doi.org/10.1016/j.esp.2007.05.001

Brindley, G. (1989). Chapter 5. The Role of Needs Analysis in Adult ESL Programme Design. In *The Second Language Curriculum* (pp. 63-78). Cambridge: Cambridge University Press.https://doi.org/10.1017/CBO9781139524520.007

Brown, J. D. (1995). *The Elements of Language Curriculum: A Systematic Approach to Program Development.* ERIC.

Cowling, J. D. (2007). Needs Analysis: Planning a Syllabus for a Series of Intensive Workplace Courses at a Leading Japanese Company. *English for Specific Purposes, 26,*

426-442. https://doi.org/10.1016/j.esp.2006.10.003

Crosling, G., & Ward, I. (2002). Oral Communication: The Workplace Needs and Uses of Business Graduate Employees. *English for Specific Purposes, 21,* 41-57. https://doi.org/10.1016/S0889-4906(00)00031-4

Dudley-Evans, T., & St. John, M. J. (1998). *Developments in English for Specific Purposes: A Multi-Disciplinary Approach.* Cambridge: Cambridge University Press.

Jordan, R. R. (1997). *English for Academic Purposes: A Guide and Resource Book for Teachers.* Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511733062

Kaewpet, C. (2009). Communication Needs of Thai Civil Engineering Students. *English for Specific Purposes, 28,* 266-278. https://doi.org/10.1016/j.esp.2009.05.002

Liao, H.-C. (2009). An English for Special Purposes Needs Analysis on University Business Management Students. *The International Journal of Learning: Annual Review, 16,* 67-88. https://doi.org/10.18848/1447-9494/CGP/v16i04/46229

Mackey, A., Gass, S. M., & Margolis, D. P. (2006). *Second Language Research: Methodology and Design* (p. 175). Lawrence Erlbaum Associates.

McDonough, J. (1984). *ESP in Perspective: A Practical Guide.* Abingdon, OX: Taylor & Francis.

Ministry of Education of China (2015). Ministry of Education, National Development and Reform Commission and Ministry of Finance's Guiding Opinions on Guiding Some Local Universities to Transform into Application Oriented Universities.

Taillefer, G. F. (2007). The Professional Language Needs of Economics Graduates: Assessment and Perspectives in the French Context. *English for Specific Purposes, 26,* 135-155. https://doi.org/10.1016/j.esp.2006.06.003

Tesema, S. A., & Woldemariam, H. Z. (2016). A Study of the Specific English Language Needs of Engineering Students of Adama Science and Technology University (Ethiopia): A Case Study. *Nawa: Journal of Language & Communication, 10,* 36-51.

Rahman, M. (2015). English for Specific Purposes (ESP): A Holistic Review. *Universal Journal of Educational Research, 3,* 24-31. https://doi.org/10.13189/ujer.2015.030104

Robinson, P. C. (1991). *ESP Today: A Practitioner's Guide.* Hempstead: Prentice Hall Hemel.

Rossi, P., Lipsey, M., & Freeman, H. (2004). Assessing and Monitoring Program Process. In *Evaluation: A Systematic Approach* (pp. 169-201). Beverly Hills: Sage Publications.