Design of Follow-up College English Curriculum Based on the Theory of Needs Analysis

Yinping Ji
Sias University, Zhengzhou, Henan, 451150, China
57077183@qq.com

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Abstract: This paper conducts a school-based research using independent college as context of research - Sias University. The theoretical framework of NA is constructed on the basis of curriculum theories and Chen Bingbing’ NA model of college English, including individual NA model (data sources from undergraduates and teachers) and social NA model (data sources from graduates and domain experts). Questionnaire and semi-structured interview are used as research methods. Moreover, triangulation is adopted to increase reliability of the data. 1396 non-English major undergraduates from grade 2015 to 2017 at Sias University and 42 graduates who work at foreign-invested companies participated in the questionnaire. Moreover, fourteen undergraduates, eight graduates and twelve college English teachers, eight subject matter teachers and bilingual teachers and nine domain experts engaged in the semi-structured interviews. The construction of follow-up college English curriculum is beneficial for SU to set up school-based follow-up English courses, and further deepen the reform of college English teaching.

Introduction

As an important part of college English curriculum, follow-up English courses can meet students’ individual and social needs for college English teaching, which is the inevitable trend of English teaching reform.

Literature shows previous studies have the following limitations: first, most NA studies have employed students and teachers as participants, who are regarded as “outsiders” of actual workplace to conduct Present Situation Analysis [1,2], neglecting the needs of other interested parties such as graduates, domain experts, and potential employers. As a result, the conclusions drawn are not necessarily consistent with the actual needs of the real work environment [3]. Second, one of the limitations of NA studies overseas is using a single method to collect data [4]. In addition, triangulation is rarely adopted for college follow-up English curriculum in Chinese context.

Literature Review

Definitions and Concepts. The College English Teaching Guidelines (2017) clearly defined the Curriculum Design as “the concentrated embodiment of teaching objectives in the school curriculum planning, and it is the arrangement and regulation of the curriculum structure and content” [5].

Domestic researcher Shu classified needs into social needs and individual needs. The former means “society’s and social institutions’ requirements for foreign language proficiency of employees”. The latter refers to “the gap between learners’ actual English proficiency and the English level they are willing to achieve” [6].

Based on relevant review of needs and NA, NA is defined as: a continuous process to collect and interpret all the objective and subjective information relevant to curriculum design with the purpose to satisfy the needs of the social workplace for the required language skills as well as learners’ needs for follow-up English courses.
Theoretical Framework. Curriculum Design is regarded as a comprehensive and dynamic system, which involves four elements, including curriculum objectives, curriculum structure, curriculum implementation and curriculum evaluation. This paper employs Zhu and Ma’s explanation, which regards curriculum objectives as learners’ expectation for curriculum, involving learners’ learning goals and skills and abilities they want to improve. Curriculum structure refers to category of curriculum, type of curriculum, distribution of class hours and duration of the curriculum. Curriculum implementation means teaching mode, teaching faculty, form of class activities, and teaching materials. Curriculum evaluation refers to the methods to evaluate students’ learning effects during their learning process [7].

Theoretical framework of NA in this paper is constructed on the basis of curriculum theories and Chen’s NA model of college English, including individual NA model and social NA model [8]. The reasons why her model is employed are as follows. First, it is complete due to its basis on the models presented by previous well-known researchers domestic and overseas. Second, it emphasizes both PSA and TSA, just as Robinson proposed, a detailed and comprehensive NA should include both of them [9]. Third, it is in accordance with Shu’s classification of needs.

Fig. 1. Theoretical framework

Individual NA model includes “personal information”, “learning capacity lacks”, “learners’ individual wants” and “learning environment needs”. “Learning capacity lacks” is mainly to find out students’ lacks during English learning. “Individual wants” can be used to figure out students’ needs for curriculum objectives. “Learning environment needs” is to investigate students’ needs for the other three elements of curriculum design, including curriculum structure, curriculum implementation as well as curriculum evaluation.

Social NA model includes “background information”, “current situation to use English at work”, “language skills needed at work” and “perspectives and suggestions on follow-up English curriculum”. The second dimension is to investigate English skills or knowledge students lack and which English skills and abilities are often used at work. The third dimension can be used to figure out the target needs for graduates. And the fourth dimension is mainly to find out graduates and domain experts’ perspectives on learning environment needs for follow-up curriculum.

Research Methods
**Research questions.** This paper is mainly aimed at finding out undergraduate students’ lacks, students’ wants (skills they need to improve), target needs for graduates as well as learning environment needs for follow-up college English curriculum from multiple perspectives (undergraduates, graduates, teachers and domain experts).

**Participants.** 1396 non-English majors including sophomore, juniors and seniors from six schools with different majors, such as Accounting and Nursing, and 42 SU graduates who are working for foreign-invested corporations or frequently use English in their job participated in the questionnaire survey. Fourteen undergraduates, eight graduates, twelve English teachers who teach English for non-English majors (including two foreign oral teachers), eight subject matter teachers and bilingual teachers, and nine domain experts participated in the interview.

Graduates have working experience from one year to fourteen years and their professions include teachers, human resource supervisor, project managers, senior firmware engineers, and lawyers, etc. English teachers have gained Master’s degree with teaching experience ranging from 3 to 42 years, and half of them have oversea educational background or visiting scholar experience. Most of them major in English Language and Literature, Linguistics and English Education. Subject matter teachers and bilingual teachers have Master’s degree and overseas educational background. They have been teaching for 4 to 13 years, majoring in International Trade, Computer Science, etc. Nearly half of domain experts have received Master’s degrees, a third of whom have studied abroad. They have 4 to 30 years of working experience and two thirds of them are engaged in jobs related to Management and Economics and Trade.

**Research Instruments.** Both questionnaires sent to undergraduate students and graduates at SU were carried out in the form of online questionnaires via the online platform Wenjuanxing (wjx). The focus of undergraduate questionnaire is the fourth dimension — learning environment needs for follow-up English curriculum. The total sample is 1396 with 1390 being effective sample, so the recovery rate of the sample is 99.57%. And the focus of graduate questionnaire is the fourth dimension — graduates’ perspectives and suggestions on follow-up English curriculum. The total sample is 42 with 42 being effective sample, so the recovery rate of the sample is 100%. Cronbach Alpha of undergraduate and graduate questionnaire is 0.945 and 0.968 respectively, which means the results of both questionnaires are highly consistent, stable and reliable, and can be used for further data analysis.

The semi-structured interviews were conducted among multiple sources including individual needs (students, English teachers, subject matter teachers and bilingual teachers) and social needs (graduates and domain experts) to collect detailed information about their perspectives and suggestions on the follow-up English curriculum, which can serve as supplements to the questionnaires among both undergraduate students and graduates. All the interviews were recorded via cellphone and digital voice recorder.

**Data Collection and Analysis.** Both the link and Quick Response Code of online questionnaires were sent to undergraduates and graduates with the help and support of the teaching secretaries and teachers of the participating schools. The descriptive statistics were mainly used for data analysis. The means, standard deviation and percentages were analyzed to see the distribution and tendency of the data so as to obtain the information relating to students’ views and actual needs as well as graduates’ perspectives and suggestions for follow-up English curriculum.

The semi-structured interviews were conducted in the form of face-to-face communication or through telephone. And the duration for interviews ranged from 15 to 40 minutes. Interview records were transcribed and coded for further analyses. Themes emerging from the transcripts were generally classified into lacks, the most desired English skills, target needs, and learning environment needs covering curriculum category, teaching mode, teaching faculty, form of class activities, teaching materials, and form of assessment. The results gained from different data sources will be triangulated to see if there is any difference and they will be interpreted and integrated together with the quantitative data from the questionnaires.
Results and Discussion

Results of Questionnaires. Listening (64.4%) and speaking (63.4%) are the English skills undergraduates want to improve which is shown from undergraduates’ questionnaire, however, speaking (69%) and reading (52.4%) are the most needed English skills at work according to graduates’ questionnaire. What’s more, the most frequently used English skills at work are to read literature or technical materials in English (mean: 3.77), to send and receive e-mails (3.71), to deal with English documents (3.51) and to communicate in English in daily work (3.4).

In regards to category of curriculum, courses of language skills (64.5%) are the most needed category of curriculum and students’ need for courses of English for Specific Purposes (ESP) only accounts for 22.7% according to undergraduates’ questionnaire while courses of language skills (62.2%) and courses of ESP (62.2%) are the top two options from graduates’ questionnaire. It can be seen that undergraduates prefer to try new types of cooperation teaching — cooperation between an English teacher and a foreign teacher (48.8%), and cooperation between an English teacher and a subject matter teacher (27.5%). However, graduates support cooperation teaching between an English teacher and a foreign teacher (54.1%). In terms of form of assessment, daily class performance (69.1%) ranks first which can be seen from undergraduates’ questionnaire while individual project report (83.8%) and daily class performance (62.2%) are the top two choices among graduates.

The results of interviews integrated with data from questionnaires will be analyzed in the following part:

Undergraduates’ lacks in learning capacity. Listening and speaking were regarded as undergraduates’ biggest lacks according to interviews among teachers, which is in accordance with the results of undergraduates’ questionnaire. Besides, writing was considered as another English skill that students lack. However, verbal expression and specialized vocabulary were the major lacks at work according to graduates and domain experts, which was in exact line with the results from graduates’ questionnaire. According to interviews with graduates and domain experts, unqualified oral English ability, discrepancy between their own verbal expressions and those of native speakers, substandard pronunciation and poor grammar were the main factors that resulted in the lack of authentic oral expressions.

In summary, comprehensive applied English abilities, especially authentic oral expressions and writing as well as specialized vocabulary are students’ biggest lacks from perspectives of both individual needs and social needs.

English skills and abilities that undergraduates need to improve. Interviews among undergraduates showed most students expected to improve their oral English because of its importance to future job hunting. However, teachers, graduates and domain experts also emphasized writing abilities. Besides, graduates laid emphasis on e-mails and English documents writing, speech and presentation skills, and the ability to read literature or documents in English, which is similar with the results in terms of the most frequently used English skills at work from graduates’ questionnaire. Furthermore, specialized English knowledge and specialized vocabulary, and intercultural communication abilities also need to be promoted according to domain experts.

Perspectives on target needs required at workplace. In combination with the results from graduates’ questionnaire, it can be seen that excellent English skills, especially oral communication, reading and writing, as well as specialized vocabulary and knowledge, and grammar are the most needed English skills and knowledge. In addition, communicative ability, intercultural communication ability and cooperative ability are the most needed abilities in a targeted working environment.

Views on learning environment needs for follow-up English curriculum. It is of great significance to offer follow-up English courses for students because of the following reasons: 1) English learning is a continuous process, however, general English courses at SU are only offered during the first two academic years, 2) it will satisfy the needs of students who are willing to further their education domestic and overseas or to find a job at foreign-invested companies or who show enthusiasm in English learning, and 3) it is beneficial for students to continue to improve their
English proficiency instead of regressing through follow-up stage, according to interviews with teachers and graduates.

As for category of curriculum, courses of language skills was ranked first due to its significance to future job hunting or individual development. However, courses of language skills based on practical skills and courses of ESP were highly recommended by teachers, graduates and domain experts, which is similar with the results from graduates’ questionnaire. In conclusion, courses of language skills emphasized on practical ability at workplace and ESP courses need to be offered during follow-up stage.

In terms of teaching mode for follow-up English curriculum, a combination of classroom teaching with online autonomous learning was recommended according to interviews with undergraduates, teachers and graduates, which is in accordance with the results of questionnaires among undergraduates and graduates. However, domain experts pointed out classroom teaching plus autonomous learning is a good mode only for students who have initiatives to learn and good self-control abilities. Moreover, most domain experts were supportive of classroom teaching integrated with practice. In a word, classroom teaching assisted by online autonomous learning platform focused on students’ practical abilities are recommended.

Concerning teaching faculty, it is recommended that an English teacher and a foreign teacher should work together to teach follow-up English courses, according to domain experts, which is in compliance with the results from questionnaires with undergraduates and graduates. What’s more, teachers and domain experts stressed the importance of interdisciplinary background with both English proficiency and solid specialized knowledge. In addition, adaptability to students’ individual needs, and the abilities to motive students and make class atmosphere interesting are crucial for teachers.

In regards to class activities, practicability and diversity are focused when conducting class activities according to students, graduates, teachers and domain experts. Class activities involve different kinds of form, such as scenario simulation, group projects or reports, topic discussion, or personal speeches, presentation, class debate, students’ lecturing, drama, etc.

As for textbooks, selecting domestic textbooks is mainly due to higher prices and more difficulty in understanding of textbooks published abroad, while the reasons for selecting textbooks published abroad are that they can learn up-to-date and professional expressions which native English speakers often use in their daily communication, according to interviews with undergraduates. What’s more, textbooks can be offered based on students’ English proficiency as a whole and textbooks related with students’ major can be offered.

Regarding form of assessment, according to interviews with teachers, graduates and domain experts, it is found that English comprehensive applied abilities are stressed when evaluating students’ learning effects through diversified forms of assessment, such as group presentations, scenario simulation and case studies. Furthermore, according to interviews with graduates, it will be efficient if different forms of assessment are conducted in different phases. Besides, teachers emphasized the importance of formative assessment and suggested the proportion of formative assessment should outweigh the summative assessment.

Above all, it is important to adopt the method of triangulation in this thesis. By collecting and comparing data from different perspectives, results gained from triangulated method can make up for the shortage of results merely based on students’ needs. Besides, Chen’s individual NA model is comprehensive, however, it has been found that some items in the dimensions of learning capacity lacks and the individual learners’ wants are overlapped during the process of dealing with data collected from students. The two items could be combined to avoid repetition because the English skills that students lack are the ones they want to improve.

Conclusion

Major findings. Based on the results and discussion, the major findings relating to students’ lacks and wants, target needs for graduates and learning environment needs (category of curriculum, teaching faculty, form of assessment) are put forward as follows:
First, authentic oral expression and writing as well as specialized vocabulary are students’ biggest lacks from perspectives of both individual needs and social needs.

Second, practical English skills required in future work are English skills students need to improve, especially e-mails and documents writing, speech and presentation skills, English literature or technical materials reading related to students’ major.

Third, oral communication, reading and writing, as well as specialized vocabulary and grammar are the target needs for graduates at work.

Fourth, in regards to learning environment needs, courses of language skills focused on practical ability at workplace and ESP courses are the major categories needed for follow-up curriculum. Moreover, the mode of cooperation between English teachers and foreign teachers is the type of teaching faculty needed for follow-up curriculum. Besides, interdisciplinary teachers proficient in both specialized knowledge and English proficiency and teachers with comprehensive qualities and abilities are most needed. In addition, multiple forms of assessment including group presentations, scenario simulation and case studies, etc need to be adopted in different phases to evaluate students’ learning effects.

**Implications of the study.** The empirical study is conducted through triangulation to collect views from different perspectives, and offer suggestions on follow-up English curriculum in this paper, which sheds new light on the researchers and college English teachers:

First, triangulation as an important research method should be adopted for NA studies.

Second, college English teachers should pay attention to their professional development in order to keep up with the times.

Third, the current evaluation system lays too much emphasis on summative assessment, which can not reasonably evaluate students’ learning effects, so suggestions on the assessment of curriculum will shed light on Department of Academic Affairs.

Fourth, it also provides reference for the college English teaching reform in other individual colleges.

**Directions for future research.** First, ways of cooperation between English teachers and foreign teachers and training for teaching faculty of follow-up English curriculum can be the focus for future research.

Second, needs analysis for teaching materials in a specific course of follow-up English curriculum could also be the emphasis of future studies.

Third, needs analysis on follow-up English curriculum which is aimed at students of a particular major can be an important aspect for further research.

Fourth, whether the teaching mode of classroom teaching combined with online autonomous learning can efficiently improve students’ practical ability to use English could be further explored.

Fifth, a valuable data resource, employers who gain deep insight into target needs and can help give constructive suggestions on follow-up English curriculum, can be involved in future research so as to understand the actual needs from more comprehensive perspectives.

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**References**


