

The Construction of Curriculum System on Discipline-Based Instruction: The Case Study of Xi'an Shiyou University, China

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Abstract

With the faster pace of petroleum internationalization, universities preponderant in petroleum science and technology should establish their characteristic mode oriented to the internationalization of Chinese petroleum industry in the cultivation of talents in foreign language major. The new notion of a discipline-based English for Petroleum Purpose (EPP) /Russian for Petroleum Purpose (RPP) curriculum construction is presented according to the new idea of Discipline-Based Instruction (DBI). According to the EPP/RPP undergraduate cultivation scheme of Xi'an Shiyou University, the EPP/RPP curriculum system based on Petroleum & Gas Engineering principle is described. DBI furnishes the basis for the EPP/RPP curriculum system. The principles of the curriculum system, the reform of the contents and methods as well as the characteristics of the curriculum system are discussed with the cultivation of the students' pragmatical abilities in foreign languages.

Key words: Discipline-based Instruction; EPP/RPP, Curriculum system; Cultivation scheme; Module; Mutual evaluation

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INTRODUCTION

In the drive of innovation of University English education in China, a project was initiated by School of Foreign Languages in Xi'an Shiyou University on "Foreign Languages & related majors on Petroleum and Petroleum international cooperation" according to the approach to English for Special Purpose in 2006. The curriculum system of English for Petroleum Purpose (EPP) /Russian for Petroleum Purpose (RPP) was constructed based on the advanced Petroleum and petrochemical discipline.

According to the objectives of the teaching reform, the cultivation schemes for undergraduates in English & Russian major have been revised. This project has been affirmed and set a high value by experts in National Ministry of Education and Shaanxi Provincial Higher Education Department for eight years long. EPP/RPP curriculum system was officially included in the undergraduate cultivation schemes for foreign language major undergraduates in 2009. We have already had the first batch of graduates in our school till now.

As for the innovation of English Major in Higher Education, "Suggestions on Improving the Quality of Higher Education" (Higher Education [2012]4 File) has been issued by the Ministry of Education.

It pointed out: Universities should fully play their go-aheadism. Distinctive features of university orientation should be determined; The plan on university development should be made; Talents cultivation and curriculum setting should be revised; The inclination of homogenization of universities should be overcome.

Zhong Weihe, the commissioner of Teaching Guidance Committee of Foreign Language Majors in Ministry of Higher Education made his point in the report titled "The Discipline Construction of Foreign Languages and Innovation of English Major" (2013). He said,

One of the main problems in foreign language education is that there is no distinct characteristics in different majors; cultivation

schemes seem all the same among a thousand more different colleges and universities, which is a serious problem we have to face at present.

He further pointed out,

the talents cultivation in English major is gradually stepping into a new stage of training foreign language talents with the compound capacities. (English + Specific Major); and the stage of the specializations in English major. Therefore, the cultivation schemes of talents in English majors in the new situation should reflect the diversity, flexibility and autonomy.

Professor Gong (2009) pointed out that too much content in Humanities and social science was put in some relevant professional knowledge courses in teaching process. The content of foreign language teaching should break through the limitation of humanities and social science.

Professor Yu and Han (2012) argued that teaching model could handle the relationship between the language teaching and the content teaching.

Professor Chang (2008, 2010, 2012) made the research on "the fusion of the content teaching system and language teaching system.

In recent years, Dalian University of Foreign Languages has achieved great success in leading "Content-Based Instruction" (CBI) into the English curriculum construction. (Chang, 2007, 2010, 2012, 2013). We have studied their successful experience carefully and the new cultivation conception "Discipline-Based Instruction" (DBI) has been put forward according to the characteristics of the disciplines in our university. (Yuan, 2012) Foreign Languages teaching is based on primary disciplines as well as sub-disciplines and related majors are oriented. English for Petroleum Purpose (EPP) /Russian for Petroleum Purpose (RPP) curriculum system has been built on basis of DBI. The following part is a brief introduction about the construction of EPP/RPP curriculum system.

1. THE REASONS OF DISCIPLINE-BASED INSTRUCTION FOR EPP/ RPP CURRICULUM CONSTRUCTION

Petroleum and Petrochemical Disciplines are traditional disciplines with advantages in Xi'an Shiyou University. The Foreign languages education in our university is resorted to the superior disciplines to form the unique Discipline-Based Instruction curriculum system. The reasons for DBI as basis for EPP/ RPP Curriculum Construction are as follows:

1.1 To Meet the Demand of Energy Internationalization Strategy in China Especially in the West Part of China

There will be a great demand for inter-disciplinary foreign language talents in the petroleum industry in the future,

who know well both foreign languages and relevant professional knowledge about international petroleum cooperation field. The demand for talents in society provides us golden opportunity for cultivating inter-disciplinary foreign language talents on the basis of Discipline-Based Instruction.

1.2 To Follow the Education Guidanc to Promote the Development of Our University and Keep the Traditional Disciplines With Advantage

Petroleum and Petrochemical Disciplines are preponderant disciplines in Xi'an Shiyou University. In order to cultivate inter-disciplinary foreign language talents, English for Special Purpose curriculums in Petroleum Engineering College of our university has been included in the "2013 undergraduate cultivation scheme in Xi'an Shiyou University". The curriculum construction with undergraduate cultivation scheme in our University satisfies the needs of foreign language talents with compound capacities in job markets.

2. THE PRINCIPLES OF THE CONSTRUCTION OF EPP/RPP CURRICULUM SYSTEM

The construction of curriculum system plays an important part role in education reform. Professor Xia (2003) put forward four basic elements of the construction of curriculum system: (a) Educational Purpose; (b) Educational Experience; (c) Effective Organization; (d) Purposed Attainment.

Professor Yan (2011) put forward several dynamic factors in terms of curriculum construction: Planning; Empirical Study; Justification, discussing teaching and learning contents, methods, teaching process control as well as Teaching and learning assessment. Based on the above points, we have shaped our EPP/RPP curriculum system principles based on the analysis of the actual demand for undergraduates in international petroleum cooperation field and the general requirements of our university's cultivation scheme.

EPP/RPP curriculum system Principles:

- a) The principle of comprehensiveness of the curriculum setting: A specific curriculum should cover the core content of the related major as much as possible;
- b) The principle of continuity of the curriculum setting: The courses of the same major should keep continuity and have cohesion of the content during semesters;
- c) The principle of relevance among courses: Courses of the same major should have as much relevance as possible;
- d) The principle of consistency: The core content of courses should match with the results of

- survey on undergraduates need analysis or small differences between them are allowed;
- e) Curriculum content adheres to the principle of “paying equal attention to language and major attribute”: professional “content” and Expertise in the discipline should be embodied in the premise of course content design fully reflecting the specific English vocabulary and terms, syntax, style and features of the textual function in the primary discipline;
 - f) Multilingual principle: The courses will be given in English, Russian or native language accordingly to make students learn and understand their professional curriculum system more directly and comprehensively.

3. EPP/ RPP CURRICULUM SYSTEM

Based on the above Principles, the EPP/ RPP curriculum system construction focuses on training language skills based on the knowledge of preponderant disciplines. EPP/ RPP curriculum construction is formed by three modules which focus on knowledge, technique, quality respectively. The curriculum system aims to deepen the students’ understanding the Petroleum Engineering Major System, consolidate basic knowledge, make students analyze foreign language features and master vocabulary related to Petroleum Engineering major. Thus, resorting to the tool of foreign languages, it can help students lay a solid foundation, grasp complete and systematic theoretical knowledge and cultivate students’ capacities as well. Therefore, EPP/RPP curriculum works with co-construction of the three modules.

The curriculum system makes the adjustment on the contents of courses such as Intensive Reading, Extensive Reading, Translation, Writing, Oral English, which lay emphasis on basic language skills. Now the learning materials are closely combined with major knowledge of primary and second-rated disciplines. Courses have been set based on disciplines, such as Petroleum English Literature Reading and Translation, Business English Reading and translation, Petroleum Technology in Russian, etc. What’s more, vocabulary and terms study of oil and natural gas in primary discipline has been strengthened, which might help students lay a solid foundation towards ESP courses.

In order to guarantee students’ systematic and complete academic study, the curriculums related to specific majors are set in the curriculum system. The following curriculums are set: Introduction of Petroleum Industry, Drilling Engineering III, Oil and Gas Field Development Geology, Curriculum of General Geology, etc.. Students will have elective or compulsory courses involved in primary and sub- disciplines. The curriculum system can help students strengthen their ability of

mastering the basic knowledge in specific field and form composite knowledge structure for future professional work.

The content involved in cultivating language skills is also included into content-based skills courses. Language skills training courses cover practical language skills in English and Russian such as Petroleum Technology Translation in English, Stylistic Translation of Oil Technology in Russian, etc., which make the language skills training systematical and complete with the field knowledge of disciplines. What’s more, certain working practice opportunities are offered to students in different majors, which include Geological Cognition Practice, Petroleum Engineering Practice, the Practice of Petroleum Science and Technology Application, Russian Translation Workshop etc. Practice in the course of language drills in real working environment can improve the students’ comprehensive pragmatic competence for special purposes.

In addition, cultivating the inter-disciplinary talents also need to lay stress on students’ composite knowledge and their comprehensive literacy. The curriculum system also includes quality education courses, which aim to enrich students’ knowledge, strengthen the cultivation of students’ comprehensive quality of humanities, and enhance their capacity of integration of international cooperation and exchange in society. Thus, the EPP/ RPP curriculum system combines language teaching and content teaching closely, at the same time, it strengthens the cultivation of students’ practical ability and comprehensive quality.

Teacher-student mutual evaluation of the EPP/ RPP curriculum system will be made at end of each semester. Students are required to assess teachers’ teaching attitude, teaching content, teaching skills by filling teacher assessment sheet. According to the cultivation scheme, students need to take examinations to get credit. The examination is divided into two parts—written examination and oral examination. Written examination involves the professional vocabulary, reading comprehension, translation and writing sections, while students’ pragmatic competence will be evaluated in the virtual work environment in the oral examination.

Curriculums in knowledge module are consisted of the basic theory and practice curriculums in specialized major, which can help composite systematical knowledge for students, improve their practical application of foreign language and broaden the horizon in their professional field; the key curriculums include: Introduction of Petroleum Industry; Drilling Engineering III; Oil and Gas Field Development; Geology; Reading and Translation of Oil English Literature; Petroleum Science and Technology in Russian; Petroleum Engineering; Selected Reading in Russian Literature, etc..

Table 1
EPP/RPP Curriculums

Major Module	English	Russian
Curriculums in knowledge module	Introduction of Petroleum Industry /Drilling Engineering III /Oil and Gas Field Development Geology /Geology/Human Resource Management/Web page and Website Design/ Reading and Translation of Oil English Literature/ Business English Reading and Translation / Customs Declaration and Customs Clearance/ International Trade/ International Economic Law/ Intellectual Property Law	Petroleum Science and Technology in Russian/ Petroleum Engineering/Selected Reading in Russian Literature/Russian Business Correspondence / Introduction of Petroleum Industry/ Western Economics/International Trade/ International Finance
Curriculums in technique module	International Business Negotiation (Bilingual)/ International Trade/Marketing II/Internet marketing II , Market Survey and Prediction/Customs Declaration/ Pragmatic Translation/Petroleum EngineeringSHE Risk Management/Translation Workshop	International Trade Practice/Petroleum Technology/ Russian pragmatic translation and writing, Customs Declaration Practices/ Market Investigation and Prediction/ Marketing II/ Language Practice/ Practice of Geology/Petroleum Engineering Practice/ The Application and Practice of Petroleum Science in Russian
Curriculums in quality module	Chinese Traditional Culture Introduction/ Western Philosophy Introduction /Economics/ Management Science/Economics and Politics in the Contemporary World/ Western culture Introduction/ Intercultural Communication	Russian Country Profile/ Chinese traditional cultureIntroduction/ Western Philosophy Introduction/ Economics/Contemporary World Economy and Politics Law Introduction/ Selected Legal Documents Reading in Russian

Curriculums in technique module are consisted of technique practice courses in English or Russian in various professional fields and the technique practice courses are integrated into different stages of learning. The key technique practice courses include: International Business Negotiation (Bilingual); Market Survey and Prediction; Pragmatic Translation; Translation Workshop; Russian Pragmatic Translation and Writing; Application and Practice of Petroleum Science in Russian, etc.

Students are offered working practice opportunities in certain companies or organizations. They can put what they have learned from books into practice and gain working experience in the rich application of language practice activities. Translation workshop is one practical course in EPP/RPP curriculum system for undergraduates in English /Russian major during 4 years education. Our school has cooperation projects with Sinopec company, subordinate enterprises of Sinopec, Chuanqing Drilling International Marketing Department, Changqing Oilfield Company as well as East Geophysical Stopper Scher companies, etc. since the year 2001 till now. We got great support from all the companies and built the working practice bases. Students have improved their pragmatic competence with the translation work from Oilfield Companies and field interpretation practice. Our students have done great job in translation work, covering fields in Petroleum Geology, Geophysical Exploration, Oil Drilling . The total translation words are more than 600,000.

Curriculums in Quality Module are consisted of History, Politics, Law and other related knowledge curriculums. The key curriculums include: Chinese Traditional Culture Introduction; Western Philosophy

Introduction; Western culture Introduction; Intercultural Communication; Selected Legal Documents Reading in Russian, etc..

Humanistic quality education is strengthened in this module and students' humanistic quality and social integration ability have been obvious improved.

CONCLUSION

Professor Chang (2013) pointed out the first three main flaws in traditional English major: (a) Basic language skills courses are over emphasized. (b) The professional courses are isolated and foundation courses are piecemeal. (c) Language teaching and the content teaching were separated, and the concept of curriculum construction is out of date.

Facing to the three main flaws in English major, the content of basic language skills courses has been adjusted in EPP/RPP curriculum system. The cultivation of students' language skills is based on content related to major, which can ease the contradiction of distribution of basic language courses and professional courses.

EPP/RPP curriculum system has been set up on the basis of the content of primary disciplines (Petroleum and natural gas engineering and petroleum geology, etc.) in our university in accordance with the discipline knowledge sequence and rules to set up curriculums in English major; The system ensures the cohesion of the curriculum setting and the curriculum content. Besides, systematicity and consistency will be shown in the teaching process.

Knowledge, technique and quality courses are set in three different curriculum modules in the system and

interactive construction has been built among them. Thus, the following problems, like students' professional knowledge deficiency, piecemeal knowledge in curriculum, and splitting language teaching and content learning, will be solved. The consistency of students' needs and curriculum setting is matched in the curriculum system, which is good to realize the cultivation scheme for undergraduates.

The construction of EPP/RPP curriculum system is obvious instructive and illustrative for the research on the cultivation of foreign language talents. Meanwhile, the practice in our university can provide reference for cultivation foreign language talents in other science and engineering colleges.

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