The Research and Practice on Undergraduate Communication Curriculum reform of comprehensive university

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Abstract-This paper discussed that The undergraduate communication curriculum of comprehensive university carried out the general education idea, established "fiber communication technology", "modern Communication network technology", "modern communication technological base" course successively for the whole undergraduates of non-communication major in the university. More than 2500 students are benefited. During cross and confluent the teaching, teachers' educational concept have changed, showing the educational feature of "breadth, deep-base, importance to ability, Innovation-needed", giving full play to the initiative, consciousness, and creativity and formed a lively situation that teachers interact with students and also teaching benefits teachers as well as students.

This paper uses the reform of "fiber Communication" course exam as an example and leads ability test for the undergraduate students of communication major, adheres to classroom teaching at first, class attendance and homework at second and lets students discuss by classroom oral test. The final score=class attendance×10%+oral test×5%+homework×5%+mid-term exam×20%+final exam×60%. It breaks the traditional mode that "one final exam determines success or failure".

Key word- quality-oriented education; exam refom; general course, communication engineering; major course; questionnaire; fiber communication.

I. GENERAL CURRICULUM OF THE COMMUNICATION

Deepen the educational reform and fully advance the quality-oriented education is to emphasize the innovation ability, the practical ability and the enterprising spirit and cultivate the humanity attainment and science quality, improve the ability to collect and process information, the ability to acquire new knowledge, the ability to analyze and solve problems, the ability of expression and cooperation and social skills of undergraduates. Communication engineering major carried out the General education idea, worked the teaching concept of "broad-caliber, solid-foundation, ability-first, innovation-needed". Since 2007, we've established "optical fiber communication technology", "modern communication network technology", "modern communication technological base" course successively for the whole undergraduates of non-communication major in the university. For few years, the students who took these classes are from more than ten majors, such as math, physics, chemistry, observation and control, light industry, auto-control, finance, industry and commerce, journalism, chinese, history, editing, trading, insurance, marketing, accounting, law, administration, directing, foreign language, etc. About 2500 students are benefited. During the teaching, we started from popularizing professional foundation knowledge of modern communication technology in scientific way, to get more about new technology of communication and network, by the structure of straightforward and interesting subject matter and enhance the teaching group and construct high level teaching group in practice. To improve undergraduate's teaching quality via advancing reform and achievement of high quality resource sharing and emphasizing connotation construction and then make the general education reform scheme more scientific, reasonable, standard and more corresponding with the personnel training mode of 21st century. Establishing elective curriculum of communication major for the non-communication undergraduates come up with newer and higher request for the teachers who should do some hard work on teaching regulation and feature of the course also keep updating and reforming the course content, improving teaching methods. It should enhance the management of class attendance and assign the homework in the report (Why do they choose the communication curriculum? Which content impressed on the class? If read the teaching material after class? Illustrate the application of communication in own major), and check that if it reach the expected effects by the questionnaire (like the Table 1 showed) do corresponding adjustment and improvement about the course content and teaching methods and keep improving the teaching quality. The depth of the major courses and communication courses aren't equal during the teaching of non-communication undergraduates, according to the principle of "classified guidance, encourage characteristics, focused on reform", put particular emphasis on linking up the knowledge-cross discipline, promote the knowledge fusing of different disciplines, strengthen the spirit of science and spirit of humanity, let the student get both professional academic training and extensive general education at the same time and settle stable base for broad thinking, creative working and initiative studying and learning of crossed discipline knowledge and skills.
II. RESEARCH ON THE NEW MODE EXAMINATION

The higher education faced to the 21st century, the first step of the exam-oriented education turn to the quality-oriented education is the reform of examination method and change of evaluation criterion of education quality. According to the traditional education, the examination is a part of promoting period of intelligence development also a process of developing the thinking ability, creativity and self-learning ability of student. The content of examination solves the problem of "what to test ?", and the examination mode solves the problem of "how to test ?". The content determines the mode, and the mode displays the content. So choosing an appropriate examination method and then highly unifying the content and the mode of examination is an important indicator of improving the science of examination. So a scientific and reasonable examination system makes for mobilizing the enthusiasm and the initiative of student's studying, and makes for promoting the improvement of comprehensive quality and developing the creativity, and makes for personality development of student.

The "fiber communication" course designed a brand new examination scheme during the examination mode reform practice as Fig. 1.

The class attendance system strengthen the team spirit, train sense of honor, improve personal quality. The homework can both consolidate the teaching content and feedback the teaching weakness.

The oral test can improve the student's such capability as oral expression, speculation, reaction, language structure, imagination, adaptive to environment, and detect the student's psychological quality, personal characteristic and appearance, also supply versatile and creative talents for the society. The mid-term exam is an open a book, that mainly checks the understanding and commanding of knowledge, the learning ability and the ability to access information.

The final exam is a closed-book exam that checks the memory ability. The objective questions broaden the question types by designing single selection type, multi selection type, true or false type, correction type, calculation type, etc. The subjective questions advocate innovative thinking -- multi-solution questions instead of one answer, one method.

"What to test" influences the student what to study, "How to test "influences them how to study and the former test guides the latter studying of student usually, even though the teaching content have been changed, the student will accept the guidance from course behavior test. The reform of examination system corrects the dialectic relationship between "teaching" and "learning", what they called "be tireless in teaching" is to the teacher, if they want to teach efficiently, at first they should have responsibility, and take care of the student who has difficulties while enjoying the happiness from the excellent student. It is a higher level of requirement for teacher. What they called "insatiable in learning" is to the student, and let them feel the joys of learning through an eliciting, interactive, exploring of examination, learning in inspiration, improving in interaction, practice in exploration.

III. CONCLUSION

The general course's teaching content of communication major involves extensive new technologies of communication, and has highly professional characteristic, including both usual but unfamiliar side and unusual side, through the graphic feature of multi-media teaching inspiring the curiosity and initiative thirst for knowledge is the expected effect of general education. The purpose of general education is educating high qualified talent who has to have followed four abilities: effective thinking ability; ability to provide legible communication; ability to make sensible judgment; ability to judge the value of the general.

The traditional examination mode is "one final exam determines success or failure" which can't reflect the student's learning situation of whole term. The new examination mode of "fiber communication" which is one of the curriculum of communication engineering major, reforms the examination method and examination system enhances the learning initiative of student by an ability-oriented method. Not only does it enable student to master textbook knowledge, but also to cultivate and train all kinds of thinking mode especially the innovative thinking ability. The new examination mode emphasizes the learning process, emphasizes the percentage of the everyday studying in the total score, lets the student have persistent learning attitude by giving some pressure in everyday studying. It is not only can improve the understanding, analyse of knowledge and the comprehensive ability to let the student's learning thinking more active, and also helpful for the future career to keep learning through the innovative thinking and updating the knowledge to keep up with the advancing and developing step of science and technology. The reform of examination system involves the all aspects and needs the teacher, student and the teaching management department to obtain a consensus. And after getting experience from trial implementation of small range then we can spread gradually.

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2."The practice of interdisciplinary teaching of communication curriculum" project funded by the 2009 project of forth teaching reform of Liaoning university.
3. "The examination reform of 'fiber communication theory' project funded by the 2008 project of first examination reform of Liaoning university.

4. "The CAI designing and producing 'fiber communication' obtained the excellence award of the seventh competition of teaching software in higher education group of Liaoning Province.

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REFERENCES:
### Statistical analysis of questionnaire survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Statistical result of feedback information</th>
</tr>
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<tbody>
<tr>
<td>Why do you choose this course?</td>
<td>A. Interested, B. For credits, C. Senior recommended</td>
<td>A. 59%, B. 25%, C. 15%</td>
</tr>
<tr>
<td>How do you feel after finished this course?</td>
<td>A. Productive, B. Just fine, C. Nothing</td>
<td>A. 68%, B. 32%, C. 0</td>
</tr>
<tr>
<td>Is your opinion is that necessary to establish this elective course?</td>
<td>A. Yes, B. No, C. Not to matter</td>
<td>A. 79%, B. 7%, C. 14%</td>
</tr>
<tr>
<td>Would you like to learn some non-major knowledge through the &quot;general education&quot;?</td>
<td>A. Yes diversification, B. No formalism, C. Not to matter</td>
<td>A. 86%, B. 7%, C. 7%</td>
</tr>
<tr>
<td>Do you understand the concept of &quot;general education&quot;?</td>
<td>A. Yes a lot, B. Yes just a little, C. No I don't</td>
<td>A. 38%, B. 48%, C. 14%</td>
</tr>
<tr>
<td>Is that appropriate to the course behavior score accounts for 30% of the total score?</td>
<td>A. Yes, B. Too little, C. Too much</td>
<td>A. 49%, B. 33%, C. 18%</td>
</tr>
<tr>
<td>What do you think of the method of check on class attendance?</td>
<td>A. Very good, encourages class attendance, B. No good, too simple, C. Others</td>
<td>A. 62%, B. 13%, C. 25%</td>
</tr>
<tr>
<td>What do you think of the method of multimedia teaching of this course?</td>
<td>A. Very good, word picture, B. No good, too fast to take notes, C. Others</td>
<td>A. 52%, B. 13%, C. 35%</td>
</tr>
<tr>
<td>What do you think of the teaching material?</td>
<td>A. Just for in case, B. For test, C. Reference book</td>
<td>A. 49%, B. 38%, C. 13%</td>
</tr>
<tr>
<td>What do you think of the teacher's teaching?</td>
<td>A. Very good, easy to understand, B. No good, too many professional terms, C. Others</td>
<td>A. 72%, B. 13%, C. 15%</td>
</tr>
<tr>
<td>What do you think of the opening test?</td>
<td>A. Very good, no pressure, B. No good, no originality, C. Others</td>
<td>A. 97%, B. 3%, C. 0</td>
</tr>
<tr>
<td>What do you expect of the test score?</td>
<td>A. Try hard to get higher, B. Get high by chance, C. Just for pass</td>
<td>A. 90%, B. 5%, C. 5%</td>
</tr>
<tr>
<td>Are you afraid to take this course?</td>
<td>A. Yes, afraid to get lost, B. No just have fun, C. Not considered</td>
<td>A. 41%, B. 41%, C. 28%</td>
</tr>
<tr>
<td>Are you think of the advantage of this course about getting a job?</td>
<td>A. Yes, maybe, B. No, not related to the major, C. Not considered</td>
<td>A. 77%, B. 18%, C. 5%</td>
</tr>
</tbody>
</table>

The final test accounts for 60% of total score  
The homework accounts for 5% of total score  
The oral test accounts for 5% of total score  
The course behavior score accounts for 20% of total score

Figure 1  The examination reform scheme of "optical communication" course