Assessment Reform Innovation of University Course  
—Applied Talents Training  
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Abstract. In order to achieve the training goal of applied talents and improve the cultivation quality in the higher education, the paper analyzes the relationship between the training goal and curriculum system and assessment methods. It specifies the reform of curriculum evaluation as an effective way to realize the cultivation goal. Based on the assessment selection and its contrastive analysis, various assessment modes for the computer science majors are suggested. The result shows that the assessment innovation is of great significance to ensure the realization of the training goal, improving the quality of higher education and enhancing the students’ overall development.

Introduction  
The fact that the local university transfers to the applied technology-oriented is the key to enhancing higher education reform and the breakthrough of structural conflict in it. At present, China has realized the adjustment and the upgrade of the industrial structure of economy, thus the requirement for the applied technology talents results. Therefore, higher education has to serve the local economy. Its structural adjustment and the upgrade should play a guiding role in the economical development, rather than lag behind it. And the local university should know and follow the principle.  

Achieving the goal of talent cultivation relies on the relevant course system, with each course module for the different talent requirements. So firstly we must establish the course system in agreement with talent cultivation, supported by the measures taken accordingly. Then by analyzing the course characteristics, the paper aims to design its assessment or the combined assessment and cultivate the students’ comprehensive ability, improving their overall quality and serving the local industry. As the traditional assessment targets knowledge memorizing and logic reasoning, it fails to test the students’ knowledge application, nor does it motivate teachers to reform their teaching methods and arouse the students’ academic interest. It is therefore worth conducting a detailed study of the course assessment methods, establishing a comprehensive evaluation system, which focuses on the process, the students’ individual development and their academic achievement, thus meeting the demand for cultivation quality and applied talents [1-4].

Relationship between Training Goal and Course System & Assessment  
Talent training program is to implement the national education policy and guarantee the qualified graduates, which the university uses to design the talent cultivation and the implementation plans. It carries out the guiding ideology of running a university, reflects its orientation, achieves the talent cultivation goal and ensures the talent quality. Also it is a programmatic document which arranges and organizes teaching and optimizes teaching resources, which, most importantly, specifies the training goal. The orientation and goal for the higher education clarifies the students’ qualities: meet the demand for certain industries and local economy, laid solid theoretical foundation, be practical and adaptable with moral integrity and innovation. The cultivation ability requires the cultivation program, course system and course assessment. Their relationship is illustrated in Fig 1 below.
The basic idea for cultivating applied talents is to standardize theory teaching and enhance fundamental knowledge; strengthen practice teaching and foster the creative ability; emphasize quality education and promote the students’ full-scale development. The course design for different specialties should meet the demand for our national strategic and local economy, thus developing the effective mechanism, which can attract industries and personnel department to make a joint course plan, and establish the training program and course system considering production reality and social development.

Course system consists of five modules: general education, basic disciplinary course, specialized course, collective practical teaching and extra-curriculum courses. The general education includes two parts: compulsory and elective. The former aims to improve the students’ political literacy, theory level, moral character, physical fitness and essential abilities; the latter should pay more attention to literacy development, cognitive ability, practice ability, critical thinking and international perspective, with scientific ways of thinking for different disciplines. Basic disciplinary courses help students with basic knowledge, fundamental theory and basic skills. Specialized courses attach great importance to students’ professional skills, widening specialty specifications and expand knowledge, helping students know about the major prospect and relevant knowledge. Required practice includes course design, comprehensive training, fieldwork cognition, productive practice, graduation practice, graduation design (graduation thesis), social practice for ideological and political course, social practice for college students and social investigation, etc. The key point is that we must cultivate their ability to combine theory with practice and analyze and solve problems as well as innovation and comprehensive ability. Extra-curriculum course aims to improve students’ overall quality and innovation, via instructing students’ social practice, technological innovations, business practice, obtaining vocational certificates and joining the campus activity. We attempt to construct the structure of knowledge, competence and quality in accordance with students’ lifelong education and social development, thus promoting their all-round development.
To teach knowledge, cultivate ability and improve quality, the course system can’t meet the demand for applied talent cultivation with only one set of exam paper. Traditional assessment focuses on knowledge memory rather than application, failing to develop the students’ application ability. Therefore, the present assessment must be reformed and multi-assessment methods must be attempted, like literature review, oral test, research seminar, report, achievement show, course study archives, etc. And the combined assessment can display teaching method reform, test the other qualities besides intelligence and achieve the cultivation goal for applied talents.

**Course Assessment Analysis**

Teachers design different course assessment methods to test the teaching content, with students as evaluation subjective. The assessment aims to urge the systematic study, strengthen and improve the students learned knowledge and skills. It is used to check students’ understanding, mastering and application and cultivate their intelligence, achieving the talent training goal. Meanwhile, it can check the class teaching, summarize the experience and improve classroom teaching and teaching quality. Clearly the course assessment is effective for students to interact with teachers while the traditional assessment can’t realize the goals above, which attaches great importance to exam results, knowledge memory and talent selection. So the new course assessment is necessary to cultivate knowledge application and improve the comprehensive quality, with formative assessment and the timely feedback, to arouse and motivate students’ study interest, respecting their individual differences and overall development.

The course assessment concerns many aspects with multiple purposes. To be effective, the assessment selection should follow the principles: targeted, timing, diversified and practical. As for the targeted principle, different courses decide different assessment contents and forms; otherwise we can’t achieve the assessment goal. For the students of different grades, the assessment method and content should change accordingly. For example, students in Grade One can’t accomplish a high-quality specialty presentation. Considering the course and individual differences, the method selection is necessary. Second, the assessment reform emphasizes the formative evaluation rather than summative evaluation. We don’t know about the students in advance with the only final exam, nor do we adjust our teaching. The assessment result without the timely feedback can’t convey the students’ disadvantage nor motivate them to improve their learning. Third, different courses require different assessments. Some are theoretical while some practical. Different knowledge points in the same course may call for different assessments, thus multiple assessments are necessary. Only in this way can applied talents be cultivated in accordance with the diversified economic structures nowadays. The fourth is practical principle. The method is easy to quantify and implement it. For example, some, like oral test, presentation, are restricted by the student number, teaching content, time, etc. So the assessment selection should consider whether it is practical. The impractical one can’t achieve the goal, failing to be applied on a large scale as expected.

Traditional assessments consist of examination with suggested answers, quiz, open-book examination and multiple-choice exam. These methods listed above can only test one’s surface memory. To improve the students’ knowledge application and overall quality, it is necessary to attempt the new methods, like oral test, course learning file, report, topic research presentation, literature review and achievement display. In view of different course assessments, the test emphasis and effect are various. For instance, the teacher decides the topic concerning the specialty in the topic presentation. The students accomplish it and report it in class. This kind of assessment can practice the students’ practical and initiative ability and improve their speaking in public and comprehensive ability. And the method discussed here is closely linked with their specialty, thus laying the foundation for their future career without any difficulty. But the disadvantages of this assessment can’t be ignored, say, no unified standard, subjective assessment, long process. Before deciding the assessment, testers must have a good knowledge of its strong points and weak points [5,6].
Course Assessment Design

To cultivate application-oriented talents, higher education should consider the course characteristics, design the assessment mode accordingly, or adopt multi-assessment, and spread the new assessment. Through the assessment reform, we intend to update the students’ learning beliefs and methods and provoke their interest and innovation, with their knowledge application and diversified development[7].

Resulting from the various assessments, all the courses in application-oriented institutes are divided into two kinds: theoretical and practical. The former includes General Education Courses, Basic Disciplinary Courses, specialized courses, General Education elective Courses, etc. Its assessment focuses on fundamental theory learning and the students’ knowledge application, quality improvement and individual development. Therefore, we can adopt the open-book exams, quiz, traditional exam, portfolios, oral test. The practice training includes course design, specialty practice, graduation practice, graduation project. It should aim to test the knowledge application, specialty skills and professional quality. So we can use achievement display, literature review, topic research, report, oral test, and so on.

A specific course needs different assessments, too, because we can’t improve one’s specialty skills and quality through a single test. For example, in a specialized course, teachers can check knowledge by quiz and improve one’s applied skills and accomplish the project by topic research, thus developing the students’ innovation and team cooperation. So the comprehensive assessment is necessary to promote students’ balanced development.

To stimulate students’ learning motivation and interest and make the objective judgment, teachers can use different assessments according to the course characteristics. For example, peer feedback can be used in the achievement display in the public basic courses, in which the teacher just functions as an organizer and coordinator. And peers can give oral tests in the basic disciplinary course, resulting in the objective score and full instructions. In addition, graduation practice is evaluated by the internship company. Multi-assessment is helpful in the students’ quality development.

Take the courses for the computer majors in Term Three for example. There are many theoretical courses, including College English, Linear Algebra, Digital Logic, Data Structure; and Practice courses include Electrical Engineering Practice, Electronics course design, Data Structure course design. Term Three lasts 18 weeks. Before each semester, the faculty members carefully study the cultivation goal and course curriculum and then decide the assessment mode shown in Fig 2.

Shown in Fig 2, the various and multi-level assessments put students under stress every week, which can motivate their learning. If the formative evaluation is adopted, the result can give feedback to teaching and next assessment. It can adjust teaching method and test emphasis. The feedback interacts with the courses related and facilitates the teaching improvement and talent cultivation.
**Summary**

With the course assessment reform, the learning style in the experimental class involved has greatly changed—superior to the control class. Judging from the discipline contests, the students in the experimental class has improved their application ability, and the teachers in it have improved their teaching, too. Obviously, the different, multi-level and comprehensive course assessments can effectively promote the talent cultivation quality. As a result, course assessment reform is an important way and the safeguard required for the technology-oriented talents in higher education.

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**References**


