

## Key Facts Exploration on Curriculum Evaluation of Computer Department in College

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**Keywords:** Computer; Curriculum Evaluation; Key Facts

**Abstract.** This article is about studying curriculum evaluation in computer science department, in order to accomplish supervision, orientation, stimulate the evaluation, finally approach the increment of educational value. It also bases on the 3 key facts of curriculum evaluation: who, what and how, discusses about the details of how to carry out curriculum evaluation in colleges. In the end, it takes examples of curriculum evaluation in department of computer science in this university, shares experience of major participation; combination of quantity and quality; skill test with multi-standards; combination of culture and ability; persistence in curriculum evaluation during college time and even after; high attention to non-neglection of any element evaluation. It is proved that this evaluation method has been a great push over the curriculum revaluation in this college.

### Meaning of Curriculum and Curriculum Evaluation

There are two ways to define the word “curriculum” specifically: One narrow definition is that curriculum means one specific subject education, which is the basic content of school educational activity. The other generalized definition is that curriculum means all the educational activities, which include all school educational content and process for educational cultivation, also includes all aimed and programmed educational activities in and out of school. It seemed that, by changing the emphasis from education reform to curriculum reform, and from syllabus to curriculum standards, the later definition is more suitable[1]. So, curriculum definition means a lot to further study on curriculum evaluation.

The core of “evaluation” is to judge the value of something. So curriculum evaluation means based on some educational evaluation standards, using special methods and techniques to judge the curriculum plan, procedure and results, and seek the way to improve. This article is based on generalized definition of curriculum, discusses the curriculum evaluation of computer department in college.

### Target of Curriculum Evaluation

Vocational education differs from diplomatic higher education; it is specially focuses on technology application skills and basic diathesis by its vocational education targets. Graduates from vocational college will directly join the society, make use of their technology skills. How present teaching targets set by college fits the skill requirements of real post? How to make education in and out of college meet the original teaching goals? Whether graduates from college can directly start to work? How can students, companies, teachers, specialists from enterprises, education experts efficiently join this whole process? Are there other problems during this process? How to make better accomplishment of all the joints?

Answer to all these questions is the content of curriculum evaluation exploration. Curriculum evaluation will judge by the level of how courses in and out of college meets social and individual requirements by systematic investigation, individual interview and discussion, make conclusion of present and potential values, in order to keep on complete courses and function of evaluation like supervision, orientation and stimulation, finally increase educational values[2]. The purpose of evaluation is not only to realize the targets, but also to find problems in time and to make

improvements, to correct and complete the program.

### **Key Facts of Curriculum Evaluation System**

As purpose of curriculum evaluation is to correct and complete the program, curriculum evaluation should not be a statistic concept but a dynamic circulating system. One functional curriculum evaluation system has to include 3 key facts:

One of the key facts of curriculum evaluation is “subject of curriculum evaluation”, which solves the problem of “who to evaluate”. In order to make curriculum evaluation justified, the subject of curriculum evaluation has to be diversified. Diversification emphasizes that the subject of curriculum evaluation has to include not only the educator but also the students, also can include specialists from enterprise, researcher in education field, even parents. And, it will get objective and comprehensive information only by democratic and diversified evaluation subjects.

Second key facts “object of curriculum evaluation” is the problem of the content of curriculum evaluation, which is “what to evaluate”. Evaluation should not focus on result but procedure, emphasize the dynamic results. Here we recommend curriculum evaluation based on the line of “curriculum location-curriculum planning-process-result-feedback”. Object of curriculum evaluation has to include at least these sub-contents: Background evaluation, Design evaluation, Process evaluation, Result evaluation. These sub-contents are related and infiltrated to each other; also each content’s self-evaluation helps other contents’ improvement and complement. These contents form the whole dynamic circulation process of curriculum evaluation. These sub-contents are as follows:

Background evaluation. Background evaluation is to check if the course has real meaning before the course starts, if the course target is suitable and the setting-up possibility. Course target is the guideline of implementation, and also the standard of course quality. Course target has to be made by department of teaching affairs, supervisor from enterprise, teachers together. The evaluation of education targets can be done through question papers in enterprise, graduates tracing, and teacher’s practice in company and so on. Course target evaluation has to focus on evaluation the foresight, practicality and feasibility.

Design evaluation. After abstract positions’ professional core ability to typical work tasks, we need to reform activity field into study field, which is course, based on recognition regulations. Curriculum design is the process of turning action field into study field. Curriculum design has to work through the relationship between courses, arrange appropriately all the course system and education plan during college time.

Process evaluation. This means to evaluation the whole procedure of the course, which includes Teacher group evaluation, Material evaluation, Environment evaluation, Teaching Content evaluation, Teaching method evaluation, Receiver evaluation, etc.

Result evaluation. This evaluation can be made by teacher, student, employer, specialists from different observation angles, by using their own advantages. Different character has different focuses, and it can make up the inadequate and biases. Therefore, it can help to improve the courses, make evaluation more justified[3]. But as teachers are the real carrier of those courses, they are the best to find out the gain and loss during teaching, and they understand better about course and teaching, therefore teachers should be the main evaluators.

Evaluation of curriculum evaluation. Evaluation of curriculum evaluation is also called element evaluation. It has 2 aspects: to evaluation the curriculum evaluation system; to re-evaluation the former evaluation plan, procedure and result. Element evaluation focuses on find the possible biases during the evaluation and correct them, finally realize “build by evaluation, correct by evaluation”.

The third key fact “method of curriculum evaluation” is to solve “how to evaluate”. It needs special background which means specific evaluation theory.[4] The consistency of curriculum evaluation decides whether evaluation result works or not. The popular curriculum evaluation mode are Tyler’s Objectives model, Stufflebeam’s CIPP model, Stake’s answer model, their specialties are as follows:

“The process of evaluation, which is essentially the process of judging how courses and teaching plan, fits teaching targets.” This is the explanation of objective evaluation in the book <Basic Principles of Curriculum and Instruction >. His model modifies the former model which emphasis

on selection but not reform, and fully discusses the importance of evaluation in the whole curriculum reform. But it has deficiencies which are : too much emphasis on how educational results meets educational targets, regarding targets as scheduled but neglects the complexity and dynamization of educational process, which is one-sided.

CIPP is explained as Context, Input, Process, Product, which is the abbreviation of four evaluation methods: context evaluation, input evaluation, process evaluation and product evaluation. Background evaluation is to analyze the background of the plan, decide rules of targets and place to carry out the plan; Input evaluation is to evaluate those plans that can realize the target, find out the most suitable and feasible one; process evaluation is to evaluation the process of carrying out the plan; product evaluation is to measure, determine the result and decide if to carry on ,end, revise or adjust one action. Stufflebeam's CIPP model,believes that the purpose of evaluation is to improve the object , to offer information to the evaluator but not to reach the goals. CIPP model breaks away the controllability of evaluation but it lacks of critical thinking and has big expense of implementation.

Staker created the countenance evaluation model in 1967, he emphasized that evaluation not only has to pay attention to the course result, but especially has to analyze the conditions and methods of special results[5]. Till 1973, Staker proposed one more mature model. Countenance evaluation model laid great foundation for the answer model. And it can be regarded that countenance evaluation model is the transition from objective model to answer model. In Staker's opinion, "educational evaluation will be an answer model if it has 3 features: 1.care more about activities of the plan but not the content;2.action to listener's information requirement;3.based on different values, report the results." Answer model introduces multi-element value and proposes a natural, dynamic evaluate method. The key is that it is no longer based on theory but from different listeners' requirement, which pay attention to the result of evaluation results, confirm their focus, pay attention to their values, let them enter the whole evaluation process. Therefore the results are more dynamic and functional. But this evaluation has to know and deal with too much content and influenced by many evaluators' subjective facts, which means the result can't be much reliable.

As discussed above, the appearance and development of every evaluation model which is the result of time has its own complex social background. The model isn't statistic but keeping on moving forward, But since every model has its own limitation, we have to choose one or several evaluation models integrate and diversely, and do certain innovation with reality, so that the innovation system will be more complete and objective.

## **Experience of Course Evaluation Practice**

Our college is one vocational college; the theory of talent cultivation is based on cultivation of basic professional talents, and specially focuses on the complexes ability. By strict professional reasoning and market investigation, we adjust major structure; locate major interest; decide educational plan; from professional position's core ability ,analyze, abstract, decomposition the detailed professional ability and make the curriculum standards; based on professional talent cultivation, technology basics, basic technology practice and teamwork to accomplish the exam; finally, evaluate and optimize every step during the course. We would like to share with all our experience as bellow:

Multi-participation in course evaluation, combination of quality and quantity.Each major in our college has one team of experts from companies, educational theory experts and teacher, which is called professional steering committee. They have discussions from time to time ,up to the market needs, adjust major structure, update course contents; our college offers tracing question papers filled by graduates and their practice employers, using graduates as the bridge of our college and the job market, so that we can take their advice and needs in time. Our college pays much attention to each evaluation procedure from students and teachers, we hold teacher discussion and students discussion every middle of the term and in every major, to know the problems in teaching and adjust in time[6]. Each end of term we have students evaluation (for teachers), teacher evaluation (for each other) and teaching evaluation (teacher for students, and we keep the data saved on sever.

Persistence in curriculum evaluation, in and after college time.During college time, evaluation can't fully explain the real situation, the reason is that students can't have open view ,are lack of

practical experience, and unable to think thoroughly. And after the course, maybe some time, a year or two, even after graduation, the students might have better understanding of that course. So, let students evaluate the course when it ends for a while is necessary. Our teachers, masters will keep in touch with their students after the course or graduation, using some internet skills to get the evaluation is possible.

Highly focus on element evaluation, non-neglection of any element evaluation. For each step of course evaluation, we will carry out strictly to the timeline and re-evaluate, the former course evaluation problem will be adjusted in the next one. We will re-evaluate every full course evaluation based on the recent requirements and market needs. So, the course evaluation is a dynamic procedure but not a statistic one.

## **Conclusion**

Course is not one product that will never change, it is a developing procedure. Course evaluation is in and through every course practice activities, it has some locating and orient functions. For the curriculum evaluation theory and opinion is updating, each city and college has its own one. In the new curriculum innovation environment, our courses in computer science department need to learn the new evaluation theory, and to guide the practice of our curriculum evaluation. In the other hand, we hope that under the guidance of newest theory, we can carry out meaningful practice in curriculum evaluation, so that we can find out our own model, with the combination of element evaluation, into every step of curriculum evaluation, finally, create a new model combined with curriculum evaluation, element evaluation and curriculum development.

## **Acknowledgement**

In this paper, the research was sponsored by the 2011 annual project of Educational Science Project “The Twelfth Five-Year Guideline” in Jiangsu (D/2011/03/094), first round founded project of “Vocational educational renovation study in Jiangsu” (GYC38) and Modern Educational technique Study project 2012 of Jiangsu Province (2012-R-22407)。

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