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Full Length Research Paper

A model for the operation of one college one innovation project, the office of vocational education commission

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The objective of one college one innovation project of bureau of vocation education standards and qualification, vocational education commission (VEC) is to study the process, evaluate teachers' perception and project's result. The case study are 285 executives and teachers from VEC and 27 selected persons with 14 test kits and 13 electronic kits. They are trained according to the operation till the progress is done. The study consists of the followings; 1) Context; determine the objective, determine obligation, set target, support policies 2) Input; executives and teachers, innovation project, 3) Process; plan, investigation, improvement, 4) Product; vocational innovation, project development, standard quality, patents and copyrights. The thoughts are viewed mostly on the process level followed by product, context and input, respectively. Overall innovative perception and technology can be evaluated at 81.85% which are considered high. All projects have passed the required standard.

Key words: Innovation project, one college one innovation, instructional media, vocational education.

INTRODUCTION

Developing educational quality is an important goal of educational reform owing to the government strategic plan B.E. 2548 to 2551. Strategies are to develop humans and societies, to create lifetime knowledge society and develop people's moral and ethic at the same time so as to enable to compete with others. In order to develop the quality of education, it is needed to develop the innovation of the schools as well. The bureau of vocation education standards and qualification, VEC (2007) has determined the objectives that all students will receive qualified education according to the vocational education standard by encouraging and supporting vocational colleges to improve their skills to the fullest. The skills are to create and develop quality innovative management and to fit the schools' contexts which are management, learning, building careers connected from the local wisdom for making the process tangible and continuous. Therefore, this project is determined to support vocational colleges in creating and developing instructional media and innovation to solve problems and improve their studies to meet the standard of the colleges' contexts. Increasing educational quality should be done con- tinuously and gathering innovation media by making innovative library to help improving quality of the learning process. Moreover, this will respond to the Educational Reform, human development and competing with other countries as well.

The concept of one college one innovation project has established since B.E. 2550. Ministry of education has supported innovative development in schools continuously. Several offices have done similar projects such as the project from Office of the Basic Education Commission (2006) and Office of the Private Education Commission (2006) which their concepts and methods are likewise. The project emphasizes on creative products of instructional media from each colleges by mainly selecting outstanding products from each school.

From the result, it is found that some computer aided instructions of the VEC's colleges are hardly relevant to the current curriculum. Eighty percents of teachers who do the project could not finish their work in time as they will only have three months and a half after receiving the budgets. Sixty five percents of the instruction medium do not meet the standard. Therefore, products are returned to correct and improve. It is suggested to change the project plan by letting teachers doing their projects

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without budget commitment. The plan may occur by getting money from any kind of rewards or competitions that teachers can freely produce their projects without waiting for the government budgets. Participating teachers will be trained about producing instructional media beforehand. They will have some presentations to exchange their knowledge, comments and methods in developing their products to be efficient (Bureau of Vocation Education Standards and Qualification, 2008).

Researchers agree to study about administrative management, innovative perception of participating teachers and required standard for products estimate so as to make clear process, systematically measure and evaluate the success of the projects' contexts, input, process and product by allowing qualitative process to be used in this project (Stufflebeam, 1985). Integrate the innovation project by evaluation to receive the long term process in the future.

Research objective

1. To study the operation of one college one innovation project of VEC
2. To evaluate teachers' perceptions in this project
3. To estimate the products in this project.

Data collection

Samples are 404 teachers from VEC. 285 selected persons are done by simple random sampling that answer the project's questionnaires and selected teachers who send their work. Each college will represent only one product from all 27 persons who are 15 teachers of training sets project and 12 teachers from electronic medium project.

The main variable is the operating method and the standard measurement of one college one innovation project, followed by the products, perceptions in innovation, technology and products' estimate of this project.

RESEARCH METHODS

The operation has been done continuously from B.E. 2550 to 2552. However, it has faced several problems as there was no exact procedure. This research will study about the operation of this project by the following methods.

1. Context analysis
2. Input studies
3. Process operation
4. Product estimate.

Context analysis

1. Researchers' objective is to give policies to the participants. Mr. Songsawat Thipkongka, vice secretary general of VEC, declares the policy by supporting teachers to do the instructional media and innovation. Each college should have its own unique and quality product as well as provide useful products for others schools.
2. Researchers set the obligation in common to achieve their tasks within a year. Projects are to be in line with objectives and policies. These will oblige systematic context, project, executive and participants announced in the project's condition all over the country.
3. Researchers set the target to have a one year project, so each school will has its own outstanding project. However, limited budgets and readiness, objectives will be determined according to the budget and time period.
4. Research team will support the projects owing to the policy by determining conditions, terms and a period of time. Estimation of innovation project and product will be provided from VEC to support teachers.

Input studies

1. The most important input is teachers. Teachers will only be selected to participate in this project. They have already developed their products and they are tended to give the products to schools. Hundreds of people would like to join the project but the selection comes from answering application form which consists of work experience, education background, presenting product and some honor works. Senior officers of the research team have chosen 27 persons to join this project.
2. Executives are also effective the input. They have to know the participants' tasks, not to mention supporting and certifying the participants' products. They are also responsible for the work in this project as the work will become an outstanding product of the college. General and traveling expenses will be supported by executives otherwise teachers cannot join this project. Several products were not supported by those executives.
3. Innovation plays an important role in this project. The work needs to be at least 80% complete otherwise it could hardly succeed. However, the work may not be approved and certified to be the innovation project of the college. In this method, training sets and electronic medium will be chosen as other kinds of projects cannot follow the basic requirement.

Process operation

In this method, Deming cycle (Deming, 1986) is used as the followings;

1. Plans: Two plans are determined to be used. First is to develop the workshop and second is to present and estimate the product. Next they will improve the work. Presentation will be done last. Date, place and plan will be clearly set up in advance together with preparation, place investigation, readiness, experts, cooperation and estimate of each method.
2. Do: Projects will be done as:

i) One college one innovation project of development bureau of technical education at King Mongkut's University of Technology is a workshop progress. Participants with their media and innovation will comprehend the standard method of this project.
ii) Estimating this workshop is held at SD Avenue Hotel. Complete work will be estimated according to the standard of VEC.
iii) Presentation and trophy will be shown at product presentation of vocational education at Bangsai International Arts, Ayudhaya province.

3. Check: Main methods will be checked and participants will improve the products. Supervisor will check the products at colleges. He will participate in the meeting and give some ideas to

the school so as to understand the work process and all work can be done on time.
4. Action: All products are counted as incomplete. Improving action is required to fit the standard. Improving and correcting products will be done within the required period. The project has considered the process by revising the tools to be appropriate.

Product estimate

1. Training sets and electronic medium will be estimated by experts. Each participant has 20 min to present then experts will give comments and send to the committees.
2. Products will be recommended for business or develop products to others colleges.
3. Standard quality assessment is from participants who give comments and suggestions in improving quality instructional media. Assessment will be listed to improve the standard.
4. Suggesting methods of patents and copyrights are ways to enable teachers to understand the participants' products. They will understand their rights about the intellectual property. Every patent should be registered and qualified work can be self registered.

RESULTS

It could be summarized that the operation of one college one innovation is divided into four aspects; context, input, process and product. According to the questionnaires, people mostly gave their thoughts to the process then product, context and input respectively. There are 285 male persons answering the questionnaires which are 68.4%. Their ages are from 41 to 50 counted as 34.4%. Most of them are teachers which count at 81.1% and some have 16 to 20 years teaching experience which are about 41.4 percents. People from VEC are around 29.5% and those who do their own instructional medium are 77.9%.
The study consists of the followings;

1. Context:

i) Identify the objective
ii) Determine obligation
iii) Identify goal
iv) Support policies

2. Input:

i) Executives and teachers
ii) Innovation project

3. Process:

i) Plan
ii) Investigation
iii) Improvement

4. Product

i) Vocational innovation
ii) Project development
iii) Standard quality
iv) Patents and copyrights

The operation of one college one innovation in the context level is quite extreme as the followings:

1. This project should identify a clear objective to the fullest.
2. This project should have a continual budget.
3. Developing instructional media should be supported.

Owing to the above steps, it is considered that:

1. College's obligation should be identified.
2. College's goal should be determined.
3. Standard education quality assessment is its product.
4. Executives should take products in consideration to one of the awards.
5. Executives should support the work without forcing the teachers.
6. This project has to be operated by VEC.
7. Teachers in vocational school should do the media.
8. Projects will be done by vocational colleges and the colleges should hold competitions regularly.
9. Instructional media should be in quantity.
10. This project should emphasize on instructional media and innovation, not any young generation's innovation.

The input is quite moderate. Executives need to support more budgets and encourage participants to send their work as much as possible. Most of the comments are all participants from every specialization are able to join this project. Executives must guarantee the participants' abilities and send the work when joining the project. The instructional media must be done before proposing into this project and it will be selected. Moreover, the candidates must be chosen from colleges. The recruiting process is the candidates' accomplishment and their own work. It is determined that each college can send only one work. However, participants in this project should have educational outstanding.

It is found that there are lots of instructional media input which include instructional media, computer aided instruction, self learning package, E-books, WBI, multimedia, training sets, CD/DVD, module program, distance education via radio and slide presentation. However, they moderately use transparent sheet and tape recording.

Firstly views of this operating process are plan, followed by do, check and action respectively. Considering each aspect, budget plan and enough expenses are most agreeable. Moreover, operation should be clearly identified. Judgment has to reach the standard level and selected committees should be responsible for this project. It is suggested that project plan is done annually.

For operating, it is agreeable that all innovative medium

be trained in the same way and participants will be notified about this matter. The process should also include participants' presentations, several meetings and using outsource.

It is also found on the checking aspect that the media can revise regularly so the innovative media is update. Moreover, presentation should be included for any suggestion or revision. All media must pass the estimate and all improvement must have the same thoughts. The instructional media will be useful if it can be use daily and academically. Owners of the work can register their patents and copyrights.

In product estimate step, instructional media should be accepted by the Office for National Education Standards and Quality Assessment. Products can identify as gold medal, silver medal and bronze medal respectively. There can be more than one instructional media but the working skill should be different. They should have national award so as to develop commercial products. Opinions about instructional media must have only one best work per college is moderate.

The overall assessment of technology perception is at 81.85 percents as computers are available. Participants encourage and train others to use computers together with seminars or training about technology. One must be able to use it and able to question, to study, to learn new program. One can follow the progress of internet. They are able to explain the work and suggest others to use new media, VDO/TV. They used to do computer training and could solve some problem, and watch distance learning programs such as Sukhothai Thammathirat Open University or Ramkhamhaeng University are the open admission University in Thailand, informal education and Thaicom Foundation is a non-profit organization for promoting lifelong learning.

Product assessment includes 14 training sets and 13 electronic sets. All pass the standard assessment.

DISCUSSION

The operation of One College One Innovation has an assessment addicted to the concepts that consist of context, input, process and product so that the project's investigation and method will be done clearly. Each step will integrate the quality control according to the Deming cycle. On the process level consists of plan, do, check and action which are called PDCA (Plan-Do-Check-Action). Therefore this operation will be highly effective. Moreover, standard assessment from VEC is used in the planning process as well.

Standard assessment is done by a supervisor from VEC (Sataporn Maitreejit, 2004). It starts from general assessment followed by the context, technique and comments. Researchers take the forms to present in the workshop at Development Bureau of Technical Education, King Mongkut's University of Technology. Teachers have given their opinions, suggestions. Two packages are used in this assessment which is training sets and electronic medium because the project's innovative media is divided into the said groups.

This project is mainly emphasized on estimating concept. The project is to integrate quality control into the operating process. Meanwhile, the important input factor is teachers who do the innovative media. They will cooperate in identifying and improving the standard assessment. They will help doing some documents and pamphlets so estimating innovative and technology acceptance is occurred (Rogers, 1986). The assessment form of Praweenya Suwannuttachok and Prachyanun Nilsook (2005) will be estimated into five levels in order to see the overall concepts that the acceptance of these participants is genuinely happened.

Conclusion

Bureau of vocation education standards and qualification, VEC has one college one innovation project to support teachers in developing innovative project for instructional media. Participating colleges should receive some awards for having good innovation for instruction. This research method is expected to be useful and to be a part of developing vocational education in the future.

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REFERENCES

Deming WE (1986). Out of the Crisis. Cambridge: MIT Center for Advanced Educational Services, p. 121.

The Bureau of Vocation Education Standards and Qualification (2007). One College One Innovation Project. Bangkok: The Office of Vocational Education Commission, Thailand.

The Office of Basic Education (2006). The Evaluation of One School One Innovation Project. Bangkok: Ministry of Education, Thailand.

The Office of the Private Education Commission (2006). The Evaluation of One School One Product Project. Bangkok: Ministry of Education, Thailand.

The Bureau of Vocation Education Standards and Qualification (2008). One College One Innovation Project II. Bangkok: The Office of Vocational Education Commission, Thailand.

Stufflebeam DL (1985). Conducting educational needs assessments .Massachusetts: Kluwer Academic, p. 34.

Sataporn M (2004). Instructional Media and Innovation Education for Vocational Education Standard. Bangkok: The Bureau of Vocation Education Standards and Qualification. The Office of Vocational Education Commission, Thailand.

Rogers EM (1986) Diffusion of Innovations. New York : The Free Press.

Praweenya S, Prachyanun N (2005). Innovation and Technology Acceptance, October-December 2005. J. Tech. Educ. Dev., 18(56);