

Thesis Title	The Internal Appraisal Model Development of Quality Assurance for Electronics Program at Technical Colleges, Educational Region 10
Thesis Credits	6
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Degree of Study	Master of Science in Industrial Education
Department	Electrical Technology Education
Academic Year	1997

ABSTRACT

The purpose of this research was to identify performance indicators and minimum standard criterion of the Electronics Diploma Program at technical colleges, Educational Region 10. The data were collected through the congruence of the experts' opinions by using Delphi Technique. The sample consisted of 3 directors and 15 assistant directors of technical colleges at Educational Region 10. The instruments used for the study were a structured interview and a questionnaire. The statistics employed were interquartile range, median, and percentage.

The findings of the study were as follows :

1. The performance indicators consisted of curriculum, students, teachers, teaching and learning activities, teaching materials, educational equipment, libraries and resource centers, learning environment, measurement and evaluation, educational services, budget management, and the mechanism of controlling the educational standard within the College.
2. The essential performance indicators were regulations, procedures and guidelines of the curriculum development, teaching load, a survey of employers' satisfaction toward graduated students, students' completion as required by the course periods, the percentage of equipment as specified by the standard criterion, the use of test item analysis in measurement and evaluation, the standard criterion of measurement/the educational measurement methodology, and the expenses of the Project.
3. The performance indicators which might be identified as either essential or inessential were the average years of students' completion, the percentage of the students

who passed the test, ranging from one to ten, the ratio of teaching staff resignation, the frequency of teaching materials used, and the average hours of using the equipment.

4. The minimum standard criteria in terms of proportion and ratio were as follows :

4.1 The proportion were : the number of teachers who had teaching materials training : the total of teachers within the division would be 1:1, the experts of curriculum development committee from the private sector : the public sector would be 1:2, the students who furthered their education : graduated students who got the job, and the number of test items concerning the basic knowledge of the Vocational Certificate Level : Diploma Level for entrance examination would be 30:70, the number of hours for teaching load : hour for other special assignments, and the number of student enrollments : student applicants would be 10:25 and 100:300 respectively.

4.2 The ratio were : the set of standardized test : course, the frequency of teaching materials training and measurement/evaluation : year, the frequency of equipment maintenance : year, the number of students : computer used would be 1:1, the number of terms : the frequency of course evaluation, the set of experimental kits : student, the group for practical learning : student, the number of years : the frequency of teaching materials guidance for teachers, and the number of fiscal years : the frequency of expenses auditing of the Project would be 1:2, the number of academic years : the scholarship granted to the students, the number of academic years : the frequency of guidance and counseling given to the students, the number of terms : the frequency of instructional supervision, and the number of courses : the teaching materials (course:item) would be 1:3, the number of teachers : students, and the number of students : the department textbooks in the libraries (person:item) would be 1:20, the number of divisions : curriculum material (division:item), the number of classrooms : student who was learning theories, the number of weeks : period of classroom utilization in learning theories and practices, and the number of weeks : period of students' learning hours would be 1:5 1:40 1:25 and 1:35 respectively, the number of students : student's cost per head, and the number of students : materials cost (person:baht) would be 1:8,000 and 1:3,000 respectively, the number of students : the area of classroom, the number of students : the area of laboratory /workshop, the number of students : the area of libraries, and the number of students : the area of retrieval information system (person:m²) would be 1:1.8 1:4 1:1.5 and 1:2.7 respectively, and the number of curriculum materials : teacher (item : person) would be 2:5.

4.3 Others were : the frequency of remedial teaching classes : course : term, the number of week : person : the hours for teaching load, the number of students admitted by privilege : quota student : the entrance students, and the number of teachers with diploma : bachelor degree : master degree or above would be 1:1:1 1:1:10 1:4:5 and 1:6:3 respectively.

5. The minimum standard criteria in terms of percentage could be identified as extremely high as in : 95% of class promotion and graduation on time specified, 90% of the budget spent according to the plan, and the frequency of using the library by students in one term, 85% of the graduates who could find jobs within six months, and 80% of equipment possession as specified by the standard criterion, moderately high as in : 60% of the students with the GPA between 2.50-4.00, and fairly low as in : 30% of minimum scores of entrance examination at each course of the division, 5% of teacher's turnover, transfer, or leave for academic purposes, and students' dropouts.

6. The minimum standard criteria in terms of numbers were that the College should have one computer linked to the internet, two student clubs available. The average GPA of students at the department should be between 2.50-2.75, the area of warehouse for electronic tools and materials used for practice should be 36 m^2 , and the average salary of students who graduated within six months would be 7,000 baht per month.

7. Another minimum standard criteria was to set up of the Technology and Innovation Center to be responsible for producing teaching materials.