

A STUDY ON BAKING CURRICULUM EFFECTIVENESS FOR JUNIOR COLLEGES IN TAIWAN ICEE 2002 CONFERENCE

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Abstract— *The purpose of this study was to investigate the banking technology curriculum effectiveness at the junior colleges in Taiwan by using the CIPP evaluation model. The study concerned that areas of the curriculum, curriculum materials, individualized instruction, support services, teaching effectiveness, student achievement, and job performance. A descriptive survey method was used with questionnaires for data collection from faculty, students, graduates, and employers. The CIPP (Context, Input, Process, and Product) evaluation model allows the investigator to look at the existing program and discover the gap between what is desired (intent) and what is actually achieved (outcome). By comparing intention and outcome, perceived unmet needs of the participants can be identified. Equipped with significant data, decision-makers may then render judgment as to satisfaction with the status quo or the necessity for program change. Conclusions were drawn in context, input, process, and product of the CIPP model. In sum, the curriculum of the two-year banking technology programs of junior colleges in Taiwan has served adequately preparing a work force to enter businesses.*

Index Terms ¾ Junior College, Evaluation, Curriculum, Instruction.

THE RESEARCH PROBLEM

Introduction

The explosive economic growth and rising prosperity of Taiwan is united with the country's system of vocational education. Paralleling Taiwan's rapid economic transformation has been the growth of its national educational system. Currently, about 150,000 vocational school students, 100,000 junior college students, and 10,000 Institute of Technology students graduate each year in Taiwan. The total number of 260,000 yearly graduates from the technical and vocation education system far exceeds the annual figures for both 60,000 academic high school graduates and 50,000 college graduates. Vocational education and training has had a major influence in providing the skilled labor force that has transformed Taiwan into one of the world's most powerful economies (Ministry of Education, 1996).

Beginning in 1973, the government of the Republic of China in Taiwan launched a series of five-year industrial and economic development plans to upgrade and update its workforce. In 1992, the Taiwan government initiated yet another ambitious six-year, 300 billion dollars, national development plan to prepare the nation for the 21st century. None of this would have been possible if the finance and technology education for the country's workforce had neither been in place nor been implemented (Yu, 1992). Chen (1990) pointed out that, "Taiwan, like many other nations, perceives finance and technology education as a key to obtain and maintain a new technological advantage and is certainly taking this issue very seriously" (p.5). Taiwan's policy on education has been progressive and constantly changing. The overall educational programs in finance and technology education have been carefully planned and developed over the past thirty years to meet the demand and challenge (Yu, 1992). In 1996, there were 71 junior colleges which offered two-year, three-year, and five-year diploma programs. There were 46 junior colleges of technology and commerce (Ministry of Education, 1996). To meet the demand for skilled financial technicians, the number of junior colleges has steadily increased over the past decade. Also, the nature of the curriculum has changed more toward technology. There have been more application-oriented technology courses, more applied technical classes, and less mathematics, science, and advanced finance classes for both five-year and two-year programs. The mission of the two-year program was designed to produce more balanced, well-rounded financial technologists (Yu, 1992).

Vocational education should assume the responsibility of educating students to meet the personnel needs of industry and commerce. To achieve its primary goal of preparing personnel for meaningful employment in industries and commerce, colleges of vocational education must ensure that curricula reflect the needs of industry and commerce. Personal as well as socioeconomic factors should be considered in the adaptation of vocational and technical education curricula. Curricular content should be adapted to help students cope with the demands of the nation's economic growth and also to meet individual needs (Chang, 1983).

The curricular objectives of junior colleges of commerce are based on the objectives of Taiwan's educational mission (Ministry of Education, 1983). A set of

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sound educational curricula should represent the society and be reflective of rapid changes. It must cover all fields of trades as well as newly emerging fields so that the educated students will be able to meet the actual needs of the work place. The curriculum is the core of the school. It includes students' need and societal requirements; it carries out the educational goals with organized teaching activities.

While prudent curriculum planning is essential to vocational education in commerce, planning does not necessarily assure accomplishment of the specified objectives. Evaluation is a tool for locating obstacles and supporting elements in order to further analyze the causes. Through appropriate countermeasures, the obstacles can be eliminated and the positive elements retained. This will be helpful in accomplishing the objectives. Evaluation of vocational education of commerce, therefore, should be based on the national policies of human resources and carried out by means of a systematic method that assesses the gains and failures of planning and implementation, while at the same time identifying the causes of gains and failures. Finally, evaluation tries to uncover the resolutions to problems to help the policy-makers improve the systems of human resource development (Chang, 1991)

Statement of the Problem

Financial knowledge is a broad and rapidly changing field. In today's ever-changing society, it is imperative that educators in the field of banking periodically or continuously assess the occupational validity of the junior college programs. If students of banking programs are not prepared adequately, there will be much waste of human efforts, time, and money. The problem is that the educators in this field do not know enough about what the graduate is expected to do in the real workplace. This results in a waste of effort, including teaching with obsolete equipment and inappropriate facilities, and delivering irrelevant instruction. Consequently, industry and commerce needs will not be satisfied and society will pay in terms of inferior products and services and low productivity (Anderson & Ball, 1980). As Chen (1922) observes, there is little formal research being done in upgrading, and refinement of programs will be necessary if the potential for the future in banking programs is to be fully realized. It is therefore essential that a regular analysis of the content base and updating of curricula take into consideration important avenues of change (Liu, 1984).

"An evaluation of curricula in terms of how well graduates are prepared for employment is critical for Taiwan's commerce education" (Chen, 1992, p. 174). There is a lack of research that uses information obtained directly from industry and commerce in Taiwan. "If industrial and commercial survey techniques are developed for use on a continuing basis, educators who develop vocational curricula will have a better foundation for program evaluation and improvement" (Wu, 1994, p. 4). In order to educate skilled financial personnel, teaching curricula must be kept up to date. With the increased emphasis on quality in Taiwan's

commerce education, the need to evaluate and improve curricula has become imperative (Lee, 1990).

Thus, the curriculum effectiveness of a junior college system is the most essential element in developing mid-level commercial human resources and an indispensable means of upgrading Taiwan's commerce human resources. Therefore, it is imperative to evaluate curriculum effectiveness in order to assess and eliminate the problems of the junior colleges in Taiwan. There exists a genuine need for a study that surveys current students of banking, banking educators, employed banking graduates, and employers of banking graduates in order to determine the appropriateness of occupational training. Information obtained from these sources can be used in planning the banking curriculum of junior colleges and evaluating its effectiveness.

THE PURPOSE OF THE STUDY

The purpose of this study is to obtain data about planning, implementation, outcomes, and effectiveness of the Banking Program of two-year junior colleges in Taiwan. The study will solicit input from teachers, administrators, and students; it will also solicit follow-up data from alumni and industry and commerce employers. These data will be interpreted for use in curriculum improvement and accreditation, and for advisement of graduates, current students, and applicants.

THE RESEARCH QUESTION

This study sought to answer a primary research question:

What are the perceptions of the banking program educators and students concerning the existing curriculum?

1. Does the curriculum produce appropriate occupational levels of student knowledge?
2. Does the curriculum produce appropriate occupational levels of student skills?
3. Are students satisfied with the existing banking curriculum?
4. Are teachers and/or chairpersons satisfied with the students' achievement?
5. Are teachers and/or chairpersons satisfied with the existing banking curriculum?
6. Are graduates satisfied with their preparation for job performance?
7. Are graduates satisfied with the existing banking curriculum?
8. Are employers satisfied with the graduates' job performance?
9. Are there significant differences in perceptions among the four populations?

Assumptions

The study was based on the following assumptions:

1. The common courses, fundamental courses, and professional courses specified by the Curriculum Standards of the R.O.C. are necessary.

2. Respondents who are involved or have been involved in the program are capable of evaluating their experience and the program in which they are involved and/or were involved.
3. The respondents will respond to the written questionnaire items honestly and openly.
4. Follow-up studies of respondents can be utilized effectively in gathering useful evaluative data.
5. Graduates of the two-year Banking Program of public or private two-year junior colleges will be the common factor across the four groups of stakeholders. The common factor enables the comparison of whether there are significant differences in perception among the four populations.

Definitions of Terms

For understanding of this study, the following terms are defined:

Criteria

Standards, rules, or tests by which something can be judged (Miller, 1978). In this research project, the criteria were to be evaluated by various academic units in order to come to a consensus of opinion.

Curriculum

"The sum of learning activities and experiences that a student has under the auspices or direction of the school" (Finch & Crunkilton, 1994, p.7)

Curriculum effectiveness

Curriculum assessment is concerned with the continued social and individual utility of the operating curriculum. Past performance should be taken into account as plans are formulated for the future. While the other factors considered in this research attempt to assess potential curriculum appropriateness, assessments of prior effectiveness provide one predictor of potential quality. To be consistent with the goals in public vocational education (individual satisfaction, societal satisfaction) and societal values (equal educational opportunity; individual's needs, interests, abilities, etc.), one of those indices should reflect some compilation of : (a) qualitative and quantitative measures of former students' satisfaction with their work, and (b) qualitative and quantitative measures of employer satisfaction with former students' performance. While that kind of index would summarize curriculum effectiveness with students placed, other indices of effectiveness might also be utilized to reflect placement efforts (e.g., placement rate/expected placement rate) and recruitment effort (e.g., enrollment/expected enrollment) as indications of the extent to which the curriculum has realized its quantitative potential for service to individuals and to society (Lamar, 1978).

Curricular standards

Curricular standards pertain to educational purposes, educational objectives, subjects taught, and subject credits, as specified by the Ministry of Education, R.O.C. All teachers or administrators should use these standards in developing curricula (MOE, 1993).

METHODOLOGY AND STATISTICAL ANALYSIS

This study used a descriptive methodology of survey research. A researcher developed survey was prepared in order to collect data used to compare the current students', faculty members', the graduates', and the employers of the programs graduates' perceptions of the program. Ideas from Van Dalen (1979), Charles (1988), and Leedy (1989) were considered in designing this study.

Van Dalen (1979) indicated that there are four purposes of the descriptive survey method: (1) to collect factual information that would explain existing situations; (2) to make comparisons and evaluations; (3) to identify special problems or to justify existing conditions or practices; and (4) to determine what other people are doing about similar problems and to make suggestions for future courses of action. Of the returned data and questionnaires, only the fully completed ones were used for analysis. The data were prepared and processed using appropriate statistical programs from the Statistical Package for the Social Sciences (SPSS).

The data were analyzed by t-test, ANOVA, and Bonferroni Post Hoc procedures for making pairwise comparisons. All variables were subjected to a descriptive analysis that yielded frequencies, percentages, means, and standard deviations and alpha coefficients. In keeping with the convention of empirical research, the results of this study were tested at the 0.05 level of significances.

The following subprograms were utilized to analyze data:

1. Percentage tabulations for research question 1, 2, 3, 4, 5, 6, 7, and 8.
2. Frequency distributions were used for research question 3, 4, 5, 6, 7, and 8.
3. A t-test were used to determine the presence of a significant group difference between the faculty and current students, faculty and program graduates, current students and graduates, and program graduates and their employers.
4. An Analysis of Valence (ANOVA) procedure was used to test for statistically significant differences among the groups of respondents to the constructs measured within the questionnaires. For all statistical analysis in this study, the level of significance was set at .05.
5. Responses to open-ended items were translated into English, categorized, and analyzed by researcher.

Upon completion of the tabulations and a compilation of collected information, analyses and comparisons of the data were made in keeping with the stated purposes of the study and the research questions. Results of the study were then analyzed within the CIPP model structure.

CONCLUSIONS OF THE STUDY

Based upon the findings of this study, the following conclusions with reference to the CIPP evaluation model were derived:

Context

The issue of practical job training practicum courses having sufficient credit hours is important to both current students and program graduates. As to the differences in perceptions about the curriculum in context evaluation, the data revealed that: (1) Faculty members tended to have more positive perceptions about curriculum itself than did graduates or current students. (2) Faculty members and current students tended toward a reduction of course requirements, but graduates recommended the expansion of required courses.

Input

The input component of the program materials relevant to most useful and acceptable materials, materials with positive effects on student achievement, and implementation of individualized instruction were perceived positively.

Both faculty members and current students tended to have more positive perceptions than faculty members about the implementation of CAI (Computer-Assisted Instruction), Audio-visual learning module, and individualized instruction methods.

Process

Improving instructional factors, support service factors, curriculum factors, and assessing teaching effectiveness, students' in-school achievement, and graduates ability were significant concerns in the process component of the program.

1. The support services factors were perceived negatively by faculty members, current students, and program graduates.
2. Certain curriculum factors were examined by the faculty members and current students. With respect to curriculum factors, most of the respondents suggested that "the objectives of the curriculum should be improved" and "the practicum disciplines in the program should be improved."
3. With respect to the instructional factors, "the interests of instructors in making the courses a useful learning experience" was perceived by both of faculty members and current students as an area needing improvement.
4. Teaching effectiveness, examined by current students and program graduates, was perceived neither as strong nor weak. They perceived instructors as helpful, cooperative, and interested in making the courses a useful learning experience. Program graduates were less positive.
5. Student achievement was perceived neither as strong nor weak by faculty members.
6. Statements seeking responses regarding whether or not graduates "possessed general occupational knowledge,"

"had sufficient knowledge to appropriately work in areas of banking and finance to which they will be assigned," and "possess general occupational skills" were rated as "agree", while statements regarding "possession of a sense of responsibility for their own learning techniques" and for "independent study" was rated as "uncertain" by faculty members.

7. Faculty members tended to have more positive perceptions about whether the structure of the curriculum should be improved than did current students.

Product

The product component of the program was examined in terms of the program graduates' academic preparation and their job performance in general as perceived by program graduates and their employers.

When comparing the perceptions toward the program graduates in academic preparation and their job performance, it was found that: (1) Employers responded favorably to the academic preparation and job performance of two-year junior technical colleges banking graduates. (2) Employers had more positive perceptions of the program graduates' academic preparation and job performance than the program graduates. (3) Program graduates' knowledge and theory required for the job, their skills and equipment familiarity from the beginning of employment, and their supervision abilities were perceived as neither strong nor weak by graduate and employer respondents.

In sum, the curriculum of the two-year banking technology programs of junior colleges in Taiwan has served adequately preparing a work force to enter business.

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