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THE MERIDA MASTER'S DEGREE PROGRAM IN EDUCATION:
A FOLLOW-UP STUDY THREE YEARS AFTER GRADUATION

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

1985

ABSTRACT

THE MERIDA MASTER'S DEGREE PROGRAM IN EDUCATION: A FOLLOW-UP STUDY

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This evaluative study was designed to determine the opinions of graduates of the Merida Program concerning the benefits to their professional development as a result of having participated in the program and their opinions about the impact on curricula and educational research in their places of employment. The Merida Program was an institution-strengthening program developed between Michigan State University and the Technological Institute in Merida, Mexico.

Data were gathered via interviews and a questionnaire. Descriptive statistics were used to illustrate patterns of responses by items, means, frequencies, and standard deviations.

Conclusions

1. International collaborative educational programs can enhance the professional development of educators.
2. Merida Program graduates appeared to be satisfied with their professional development as a result of having participated in the program.

3. Merida Program graduates perceived that they had influence on significant changes in the areas of teaching and educational research at their places of employment.

4. Merida Program graduates perceived that they were using, in their professional roles, most of the skills and/or knowledge learned during the Merida Program.

5. Follow-up studies related to graduates of educational programs are legitimate methods for gathering evaluative data regarding the adequacy or inadequacy of such programs.

6. Findings from follow-up studies can be information sources regarding skills learned during an educational program and those that are used in the professional roles of graduates.

7. Findings from follow-up studies can be information sources regarding the professional expectations of educational program graduates and their professional benefits for having participated in such programs.

To the memory of my grandfather, Lic. Augusto Molina Ramos,
who devoted his life to education.

ACKNOWLEDGMENTS

To all the persons who made the Merida Program a reality, mainly Ing. Enrique Cardenas and Dr. Howard Hickey, coordinators of the program.

To my loving wife, Liz, whose understanding, encouragement, and sacrifices made it possible for me to complete the Ph.D. program.

To the National Council of Science and Technology in Mexico and the Direccion General de Institutos Tecnologicos, which provided the financial support for my graduate studies.

To the members of my guidance committee, Drs. Samuel A. Moore, Howard W. Hickey, and George Ferns, for their encouragement and assistance in completing this project. Grateful appreciation is extended to the chairman of the guidance committee, Dr. Richard Gardner, for his guidance, support, and friendship during my studies at Michigan State University.

To Rosa Nayibe Mendoza A., colleague and friend, who edited this work.

To my parents, Manuel Jose and Rosa Elena, who taught me the value and importance of education.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
 Chapter	
I. INTRODUCTION	1
Merida Master's Degree Program in Education	2
Follow-Up Study of the Merida Master's Degree	
Program in Education	4
Statement of the Problem	5
Importance of the Study	6
Purpose of the Study	7
Research Questions	7
Limitations	8
Overview of the Dissertation	8
II. REVIEW OF LITERATURE	10
Development of Higher Education in Mexico	10
History of Higher Education in Mexico: Colonial	
Period, 1520-1822	11
The Independence Period: 1822-1910	12
Revolutionary and Post-Revolutionary Period:	
1910-1934	13
Technological Education	14
Use of Program Evaluation	17
Reasons for Low Use and Little Impact of Studies	
Relating to Program Evaluation	17
Research in the Use of Evaluation	20
Precedents in Follow-Up Studies	23
Follow-Up Studies in the United States Related	
to Teacher Training	26
Previous Studies Related to the Merida Program	28
Evaluative Study During the Merida Program	29
Follow-Up Study One Year After Graduation	30

	Page
III. METHODOLOGY	33
The Population	33
Design of the Study	34
Identification of Interested Audiences	34
Identification of Relevant Questions	35
Instrument Design	36
Stage 1	36
Stage 2	40
The Instrument	42
Procedure for Data Analysis	43
IV. DATA ANALYSIS	45
Demographic Information About the Population	46
Analysis of Research Questions	48
Research Question 1	48
Research Question 2	51
Congruence Between Expected and Obtained Professional Benefits	54
Research Question 3	56
Research Question 4	59
Congruence Between Skills and Knowledge Acquired During the Merida Program and Skills and Knowl- edge Used in the Actual Professional Roles of Graduates	63
Research Question 5	65
Participation in Educational Activities	66
Research Question 6	68
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	70
Summary	70
Conclusions	72
Recommendations	73
APPENDIX	75
REFERENCES	82

LIST OF TABLES

Table	Page
1. Distribution of Graduates by Sex	46
2. Respondents' Places of Employment at the Beginning of the Merida Program	47
3. Respondents' Positions at the Beginning of the Merida Program	47
4. Professional Background of Respondents	48
5. Professional Expectations of Merida Program Graduates in the Category of Professional Growth	49
6. Professional Expectations of Merida Program Graduates in the Category of Recognition	50
7. Professional Expectations of Merida Program Graduates in the Category of Learn About Educational Systems	51
8. Professional Benefits Obtained by Merida Program Graduates in the Category of Professional Growth	52
9. Professional Benefits Obtained by Merida Program Graduates in the Category of Recognition	53
10. Professional Benefits Obtained by Merida Program Graduates in the Category of Learn About Educational Systems	54
11. Differences Between Means of Expected and Obtained Pro- fessional Benefits as Reported by Merida Program Graduates	55
12. Skills and Knowledge Learned During the Merida Program in the Category of Educational Research Techniques	57
13. Skills and Knowledge Learned During the Merida Program in the Category of Teaching Techniques	58
14. Skills and Knowledge Learned During the Merida Program in the Category of Administrative Skills	59

	Page
15. Skills and Knowledge Used by Merida Program Graduates in Their Professional Roles Three Years After Graduation in the Category of Educational Research Techniques	61
16. Skills and Knowledge Used by Merida Program Graduates in Their Professional Roles Three Years After Graduation in the Category of Teaching Techniques . . .	62
17. Skills and Knowledge Used by Merida Program Graduates in Their Professional Roles Three Years After Graduation in the Category of Administrative Skills . .	63
18. Differences Between the Means of Skills and Knowledge Learned During the Merida Program and Means of Skills and Knowledge Used in the Professional Roles of the Graduates	64
19. Educational Areas in Which Graduates Considered They Had Influenced Significant Changes	66
20. Educational Activities That Merida Program Graduates Had Organized or in Which They Had Participated	67
21. Knowledge and/or Experiences Not Provided During the Merida Program That Graduates Felt They Needed in Fulfilling Their Professional Roles	69
22. Professional Expectations of Graduates of the Merida Program	74
23. Knowledge and Skills Learned and Used by Graduates of the Merida Program	76

CHAPTER I

INTRODUCTION

Mexico, as most Latin American countries, has a limited number of highly qualified human resources. The need to modernize and to improve education stimulated rapid growth in the number of postsecondary institutions in the country. At the same time, it became necessary to train professionals for advanced degrees in scientific fields and the social sciences, in order to staff these institutions.

This approach was similar to actions taken in other Latin American countries. Pelczar (1977) noted that the approach taken by different Latin American countries to improve the quality of higher education institutions was to increase the number of full-time professors and to promote faculty upgrading through advanced education, predominantly provided in foreign countries.

Before 1970, most of the training by Mexico for advanced degrees was accomplished in foreign countries. Graduate programs in Mexico began to develop and to expand in the 1970s as a result of the creation of the National Council of Science and Technology (Gomez, 1980).

An example of the rapid growth in training for advanced degrees is the increase in the number of scholarships given to train persons

in the areas of science and technology, where the annual growth rate was 37.7% from 1971 to 1981. The number of scholarships awarded increased from 580 in 1971 to 25,244 in 1981 (Flores, 1982).

Training for advanced degrees in the area of higher education was needed and became a priority in the National Plan of Higher Education and the National Plan of Science and Technology (Formacion Recursos Humanos, 1980). In 1976, 357 persons were studying for their master's degree in education. By 1978, the number of persons enrolled in master's degree programs had increased to 722. At that time, 19 master's degree programs were available in different parts of Mexico, mostly in northern states. No programs were available in Yucatan or nearby states (Gomez, 1980).

Merida Master's Degree Program in Education

In 1980, the faculty of the Technological Institute of Merida comprised professionals in areas such as engineering, chemistry, mathematics, and business administration, but most of them lacked adequate training in teaching. The area of educational research was almost nonexistent, due to the lack of adequately trained personnel and the dearth of nonhuman resources such as library facilities and pre-existing applicable research studies.

This situation was similar to that in other higher education institutions in Mexico and Latin America. Pelczar (1977) described the traditional image of the Latin American university professor as "a leading professional in the community who was hired to teach a few

hours a week, and as a consequence had little time for research, publications and other University affairs."

As part of an institution-strengthening agreement, Michigan State University and the Technological Institute of Merida collaborated in designing a master's degree program in education. The program was conducted in Merida, Mexico. Professors from the College of Education at Michigan State University taught most of the courses.

This program was offered on a one-time-only basis and was unique for both institutions. The program was the first graduate program offered for non-Americans off campus, and the residence requirements were waived. It was the first graduate program offered at the Technological Institute of Merida taught almost exclusively by American professors.

The general goals of the program were developed cooperatively between Michigan State and the Technological Institute of Merida, based on the most important needs of higher education institutions in the southeastern part of Mexico according to the National Plan of Higher Education and determined by administrators of the Technological Institute and the coordinator of the Michigan State University College of Education. The general goals of the program were:

1. To strengthen the instructional and administrative skills of participants.
2. To strengthen the areas of research, curriculum development and continuing education.
3. To encourage continuing professional growth among participants.
(Porter, 1984)

The Mexican Council of Science and Technology provided the total funding for this program, including a living allowance for most of the Mexican participants. In addition, the government of Honduras sponsored one Honduran student.

The Merida Master's Degree Program in Education was conducted from September 1980 to December 1981. Upon completion of the program, graduates returned to employment. Some of them were promoted to higher positions, others went back to their old jobs either as teachers or as administrators, and a few changed jobs.

Follow-Up Study of the Merida
Master's Degree Program in Education

Research attempting to assess the influence of educational programs on graduates has been done in the United States, and relevant information has been found about graduates' perceptions of the usefulness and importance of their experiences during the programs (Beaty, 1980).

The Merida Master's Degree Program in Education was a unique program. An American university offered a master's degree program in a foreign country without the on-campus residence requirement. The findings of previous research may not be valid in this new situation; therefore, it was considered important to assess the influence of the Merida Program on graduates and their achievements as a result of having participated in the Merida Program.

The research conducted for this study focused on determining graduates' perceptions of the usefulness of this unique program. The

present study may be viewed as an effort to measure, in some way, the results and impact of the Merida Master's Degree Program in Education in order to provide guidance and direction if similar programs are to be developed in the future either by the Mexican government or by Michigan State University for its international programs.

Statement of the Problem

According to the literature related to program evaluation, it is necessary and convenient for educational institutions to have information about the results of professional-development programs, so as to improve future programs (Stake, 1967).

The Technological Institute of Merida, with funding from the National Council of Science and Technology, sponsored a Master's Degree Program in Education as part of an institution-strengthening agreement with Michigan State University. Members of the faculty of the Technological Institute of Merida participated, as did members of the faculty of other higher education institutions in Yucatan state and nearby states.

There has been no follow-up study of the participants in the master's degree program. Published data do not exist to indicate the degree to which participants accomplished the goals established for the program.

Importance of the Study

According to Wentling and Lawson (1980), educational institutions may obtain relevant data regarding the adequacy or inadequacy of a program by eliciting information related to the perceptions of former students in the program and their success in employment. Follow-up studies investigate individuals who have left an institution after having completed or left a program. Such studies are concerned with what happened to former students and with the impact on them of the institution and its programs.

Follow-up studies may give important information regarding the strengths and weaknesses of a program because former students are in a special position to judge such characteristics (Burton, 1977; Schawanke, 1980; Wentling & Lawson, 1980). By examining former students' status or seeking their opinions, the institutions may get some idea of the adequacy or inadequacy of their programs. For example, follow-up studies serve to assess what courses, experiences, or treatments proved to be of value, or proved to be ineffective or of limited value, by evaluating various aspects of the program based on actual results (Wentling & Lawson, 1980).

At the same time, follow-up studies provide the institutions with reliable information regarding the success of former students, either at work or at other educational institutions (Nelson, 1964; Schawanke, 1980). In this sense, Darcy (1981) wrote, "The success of

graduates or drop-outs cannot be measured during the length of the program. This information is very important for decision makers in program planning, program design and in program implementation."

Purpose of the Study

This evaluative study was designed to determine the opinions of graduates concerning the benefits to their professional development as a result of having participated in the Merida Program, and their opinions about their impact on curricula and educational research in their places of employment.

Research Questions

This descriptive evaluation study was undertaken in an attempt to answer the following questions:

1. What were the professional expectations of participants of the Merida Program?
2. What professional benefits did graduates consider they obtained from participating in the program?
3. What knowledge and skills did graduates consider they learned as a result of participating in the Merida Program?
4. What knowledge and/or skills acquired during the Merida Program were graduates using in their professional roles three years after graduation?
5. In what educational areas did graduates consider they had influenced significant changes in their places of employment?

6. What activities not provided during the Merida Program did graduates consider they needed in their professional roles?

Limitations and Delimitation

The study concerned only the graduates of the Merida Program conducted from September 1980 to December 1981. The results obtained cannot be used to make inferences about other professional-development programs planned or conducted by the Technological Institute of Merida or by other educational institutions.

This evaluative study was designed to obtain Merida Program graduates' perceptions of the usefulness of the program in their professional development. It was not designed to evaluate the process of the Merida Program.

Definitions of Terms

In an effort to clarify terms used in a particular manner in this study, the following definitions are provided:

Merida Master's Degree Program in Education (Merida Program).

An institution-strengthening program conducted in Merida, Yucatan, Mexico, from September 1980 to December 1981. Michigan State University College of Education professors taught most of the courses.

Merida Technological Institute. An educational institution in Merida, Yucatan, Mexico, where professionals in different technological areas are trained.

Professional expectations. The personal, economical, and social changes a professional person hoped would occur in himself.

Professional benefits. The personal, economical, and social improvements that occurred in a professional person.

Actual professional role. Educational activities performed at graduates' places employment at the time they responded to the data-gathering instrument in December 1984.

Overview of the Dissertation

In the first chapter, the problem was presented, as were the importance and purpose of the study. The research questions and limitations were also stated.

In Chapter II, selected literature concerning the basic elements of the study is presented. First, a review of major program-evaluation approaches is presented. Second, a review of literature concerned with follow-up programs is provided. Third, a review of teacher professional-development programs is examined.

The design of the study is presented in Chapter III. A description of the population, the development of the survey instrument, data-gathering procedures, and data-analysis techniques are presented.

In Chapter IV, the results of the data analysis are set forth. Major significant findings are summarized.

The summary, conclusions, and recommendations of the study are contained in Chapter V.

CHAPTER II

REVIEW OF LITERATURE

This evaluative study was designed to determine the opinions of graduates concerning the benefits to their professional development as a result of having participated in the Merida Program, and their opinions about their impact on curricula and educational research in their places of employment. To place this study within a theoretical frame of reference, the following topics are reviewed in this chapter:

1. Development of higher education in Mexico
2. Use of program evaluation
3. Precedents in follow-up studies
4. Follow-up studies of teacher-training programs
5. Previous studies related to the Merida Program

Development of Higher Education in Mexico

This section contains a description of some factors that affect higher education institutions in Mexico today--its past and present situation. This information is necessary to understand the importance of the Merida Program and the impact it may have had in higher education institutions in Mexico.

History of Higher Education in Mexico:
Colonial Period, 1520-1822

The first higher education institution created in Latin America was the College of the Holy Cross of Tlateloco in Mexico. This college was founded in 1536 for the purpose of educating noble Indians, in particular to teach them the European culture.

In 1551, the Spanish Crown established the first University in Mexico, the Royal and Pontifical University of Mexico. Its purpose was to educate Spaniards, Indians, and mestizos. Its mission was to Christianize and teach technology, and it offered courses in theology, holy scripture, canon law, law rhetoric, and grammar (Rangel-Guerra, 1978). This university was created after the plan of the University of Salamanca, although it did not have the latter's privileges or its autonomy (Vargas-Arrazola, 1982).

The second university in Mexico, the Real y Literaria Universidad de Guadalajara, was established in 1791 in Guadalajara. The university had four careers: religion, law, medicine, and surgery.

During the colonial period, from 1521 to 1822, higher education institutions were expanded primarily by Catholic groups, mainly Franciscans, Augustinian monks, and Jesuits. The Jesuits founded 24 colleges before their expulsion from the country (Rangel-Guerra, 1979). Vargas-Arrazola explained that there was no academic and cultural freedom at this university during the colonial period because of state and church interference.

The situation of intellectual parallelism prevailed until about the end of the colonial period, when political-economic reforms gave

more freedom to the New Spain (Mexico). Only then, and in a timid way, did the initiative to develop knowledge and teach philosophy with less faith and more critical reasoning flourish.

During the latter part of the Spanish rule (late 1700s and early 1800s), higher education in Mexico decayed. Osborne (1976) cited two reasons for this decadence:

1. There was a shift of educational leadership as the result of the decadence of the southern renaissance in Europe. The new leaders were Germans, and their emphasis was research.

2. Social problems leading to Mexican independence were the other factor.

The Independence Period: 1822-1910

After Mexico obtained its independence from Spain in September 1821, higher education institutions entered a period of crisis. Vargas-Arrazola defined the period from 1810 to 1865 as the "undefined period" (p. 24). During the undefined period, higher education institutions suffered the consequences of government-church power struggles. For example, the University of Mexico was suppressed in 1835; it reopened and closed again seven times in the mid-1800s. In 1865 it was closed again, not to be reopened again until 1910, although efforts to have it reopen were made at different times by different educators. Among the Mexican educators was Justo Sierra, who in 1881 promoted a law to reopen the University; he was defeated.

Finally, in September 1910, as Minister of Education and Fine Arts, he was able to reopen the University of Mexico.

In Mexico, the concept that higher education should be a separate entity from the government originated with Justo Sierra. He said,

Higher education can not have any other law than the law of the method, which will normally be out of the government's reach. This entity, to be called the National University, will formulate its own administrative rules which will be approved by the government, if the latter has its best interests in mind.

The University of Guadalajara had a fate similar to that of the University of Mexico. It was closed and reopened several times during this period.

Another important historical factor has influenced education in Mexico. In 1857, a new constitution made a basic change in Mexican education. The 1857 Constitution called for the separation of church and state and established secular education. Osborne (1976) stated,

As clarified in a later law, henceforth education in Mexico was to be compulsory, free, and secular. Thus the stage was set for a popular educational movement which continued into the 20th century and the tradition which is still markedly visible today.

Revolutionary and Post-Revolutionary Period: 1910-1934

The revolutionary period was characterized by fast changes of governments due to political unrest; these changes affected the universities. Again higher education institutions experienced the consequences of political struggles. Describing the history of the University of Mexico, Vargas-Arazola wrote,

In 1912 Madero's government closes it. The government of Huerta opens it again, cancelling the primary rights which were given in 1910. In 1914 the Carranza government changes the law referring to the university. In 1917 it becomes part of the Ministry of Fine Arts.

Not until 1934 did Mexico begin to have a stable government. This stability has continued to the present. Higher education institutions have reflected this stability. The University of Mexico obtained its autonomy in 1944. It is a public corporation separated from the government, with full legal power. When the University of Mexico was granted autonomy, only two other universities in the country were autonomous. Since then, all but four universities in Mexico have been granted autonomous status. New universities are created with autonomy (Rangel-Guerra, 1979).

Technological Education

According to Ramirez (1966), the development of technological higher education began in 1915, when the Practical School of Mechanical Engineering was founded. In 1932 the Technical Preparatory School was founded; its main focus was to teach primarily technology with some humanities courses. This school was later transformed to the National Polytechnic Institute, its mission being to train technicians of all levels.

In 1961, as part of the Polytechnic Institute, the Center for Advanced Study was created by presidential decree. This center had as a mission to conduct research in scientific and technological areas, as well as to prepare researchers and professors to improve the quality of higher education in Mexico. Five years later, the Institute had 29

incorporated institutes to provide technical education in Mexico City.

The purpose of the technical higher education institutions in Mexico is to prepare professionals who are needed by the complex and technological development of Mexico (Ramírez, 1966).

The national system of technological institutes was created in 1948 with a similar mission to that of the National Polytechnic Institute, but with the purpose of decentralizing higher education and promoting regional development in the Mexican provinces (Castillo, 1982). By 1966 the system was integrated by 11 institutes located in different cities throughout Mexico. Their total student population was 10,047, studying at the secondary through bachelor's degree levels. None of the institutes had graduate studies.

During the 1970s, as a result of a national policy to improve Mexican technology by increasing the number of higher education institutions, the national system of technological institutes grew rapidly. At the same time, there was an emphasis on developing advanced programs by creating graduate centers in several technological institutes.

By 1980, the number of technological institutes had increased to 48, with a combined population of 46,212 students who were studying for their bachelor's degrees in 71 different career areas. The technological-institute system had phased out the secondary level of instruction and was initiating a phase-out of the preparatory level, as well.

Ten technological institutes had centers of graduate studies and research; 396 students were studying for a master's degree in technical science, and 70 were studying for a master's degree in education. In 1980 the total number of teachers working in the system of technological institutes was 6,495; most of them were working part time (DGITR, 1980).

A scholarship program to train faculty at the technological institutes began in 1976. This program was created to develop the professors and researchers required to conduct technological research and to teach graduate-level courses. The areas of faculty training were according to identified national priorities, such as engineering, chemistry, mathematics, administration, and education (DGITR, 1980).

Education was considered a priority area because most of the professors had had training in technical areas but little formal education in teaching. To improve teaching skills of faculty members at the technological institutes, the Interdisciplinary Center of Teaching and Research was created. Other faculty went to foreign countries to study specific educational areas not covered at the Center.

The Merida Program was created as a result of interest in improving the teaching skills of faculty at the technological institutes. This program was developed as part of an agreement with Michigan State University (Porter, 1984). It was designed to strengthen the competencies of the staff at the Technological Institute of Merida and other higher education institutions. The areas covered

by the Merida Program were administration, evaluation, research, and continuing education. Most of the courses were taught in Merida by faculty members from Michigan State's College of Education. The project was funded by the Mexican Council of Science and Technology as part of the national policy to improve higher education institutions.

In summary, the history of higher education institutions in Mexico shows there has been a lack of academic tradition because of the constant struggles between different governments. Technological education is a fairly recent phenomenon and has shown a large increase in student enrollments and in the number of institutions. This growth has created a demand for qualified teachers.

Use of Program Evaluation

This section contains an overview of the uses and limitations of program evaluation. Reasons for low usage and little impact of program evaluation on educational programs are presented in the first part of this section. Studies related to how program evaluations can be enhanced to have a greater influence on educational programs are discussed in the second part.

Reasons for Low Use and Little Impact of Studies Relating to Program Evaluation

Program evaluation has been considered an important tool to improve courses and educational programs (Combrach, 1963). Nevertheless, Guba (1969) concluded that evaluation results have not been used

very much in the decision-making process and that evaluation information has been largely ignored.

Stake (1967) argued that there was dissatisfaction with evaluative studies. He mentioned that evaluation studies did not provide adequate data for curricular decisions because most such studies were based on informal evaluation: asking for opinions of instructors or considering the reputation of advocates. Stake noted that very few studies obtained relevant reports.

Katz et al. (1981) conducted an analysis of 26 teacher-education follow-up studies to examine some of the main problems connected with such studies. The researchers concluded that the follow-up studies did not provide adequate information for decision makers because the investigations had the following weaknesses:

1. The percentage of respondents was not adequate. On the average, one out of three persons failed to respond.
2. The recommendations were not adequate or explicit. Katz et al. found that none of the suggestions included an activity to be deleted from the program. Other recommendations were too vague to act upon.

Wentling and Lawson (1980) asserted that traditional evaluation has not been as effective as it could be because it has been weak in the following six respects:

1. Evaluation has been informal. The traditional method for conducting evaluation has been done informally, without adequate planning. Therefore, the information obtained has not been reliable.

2. Evaluation has been fragmented. The common practice has been to evaluate segments of a program or an institution; there has been little effort to integrate, in a systematic manner, these segments.

3. Evaluation results have seldom been used for improvements. Results of evaluation seldom have been designed to be used in program improvement. Findings usually are used for accountability or to comply with government regulations.

4. Evaluation has been unrelated to planning. Although educational planning should include feedback from results of previous activities or programs, in reality there have not been planned efforts to integrate evaluation with planning.

5. Evaluation has lacked commitment. While industry gives quality control a high priority and invests large amounts of resources in measuring the quality and quantity of their product, educational institutions do not give very much importance to maintaining adequate quality control of educational programs.

6. Evaluation has been narrowly focused. Most evaluation studies have focused on student or teacher performance. Although such information is important, other factors need to be considered in evaluating the product of an educational institution.

The low use of program evaluation in the decision-making process is not because program evaluation cannot provide adequate information to improve courses and/or educational programs. Rather,

its low use may reflect an unsystematic approach to conducting the studies.

Research in the Use of Evaluation

As mentioned earlier, studies related to program evaluation often do not directly affect the fate of programs. Several studies have been conducted to find ways to enhance the use of program-evaluation findings.

Alking and Daillek (1979) conducted a study on the use of evaluative research. They analyzed the use of studies after they had been reported. Their recommendations included eight factors the evaluator must consider to enhance the use of evaluative studies.

1. Preexisting evaluations' bounds. These bounds, such as rules, regulations, and community relations, are part of the setting of the evaluative study. These characteristics are constraints in the evaluative process, and the evaluator should be aware of them.

2. Orientation of users. The information obtained should be of interest and be understandable to users.

3. Evaluator approach. The way the evaluator approaches the study influences the use of the evaluation. Use is enhanced when the evaluator simulates and facilitates the use of evaluation information.

4. Evaluator credibility. The respect and credibility the evaluator obtains from his/her clientele is an important influence on the evaluation process.

5. Organizational factors. Decision makers are not autonomous in their organizations but must follow other internal influences.

Therefore, evaluation findings become only another input in the decision-making process.

6. Extraorganizational factors. Forces outside the school organization affect the use of evaluative information. For example, community and governmental agencies outside the school influence the decision-making process.

7. Information content and reporting. The evaluator should consider the best way to report the evaluative findings. One approach suggested was to communicate findings through a dialogue instead of one-way communication.

8. Administrator style. Administrators' organizational skills affect the extent to which the evaluation results will be used.

Patton (1978) maintained that evaluators cannot separate themselves from the political aspects of social programs. He conducted a study related to the use of social research in evaluating federal health programs. Patton reported that there was a low response in the evaluation recommendations, but he believed that evaluation reports were used as an important source of information. He recommended that program evaluators should consider the following factors:

1. Evaluators need to consider the political environment of the program.

2. Decision makers should be involved in the evaluative process.

3. Program-evaluation reports should be directed to answering decision makers' questions.

4. Evaluative designs should be developed for use in making future decisions.

The identification of audiences is important in obtaining the information decision makers need. In their study related to the generalization and use of educational evaluation, Haymen et al. (1979) suggested that data should be related to the level of the decision maker. At the national level, it is important to include state, regional, and national information, but including information related to individual students has little or no value. On the other hand, if the evaluation is to be used at the school or classroom level, information relating to specific groups of students is important and relevant.

Katz et al. (1981) conducted research in the use of follow-up studies in teacher training. They suggested that recommendations should be persuasive to the readers to whom they are addressed. Recommendations should include not only additions to a program, but also recommendations to delete parts of the program that graduates find have not been useful in their professional development.

In summary, results of program-evaluation studies can be relevant and useful in decision making. Nevertheless, it is necessary to consider that program-evaluation findings are not a guarantee that a program will be eliminated, reduced, or enlarged based solely on the evaluation results. Decisions about educational programs are based not only on their merit, but on the political environment, as well. To enhance the use of evaluation studies, decision makers should be involved from the beginning of the evaluation process. Those

preparing reports should consider the prospective audiences and identify their interests and questions.

Precedents in Follow-Up Studies

This section of the literature review contains information related to the procedures and techniques of follow-up studies. Included is a discussion of the purposes, strengths, and weaknesses of such studies. Also, some relevant follow-up studies of teacher-education programs are discussed.

Educators generally agree that follow-up studies can be used to improve educational programs by obtaining information related to graduates' success after completing a program or by eliciting their opinions related to experiences during the program that they now consider important in their professional development. It is also important to mention that other authors have issued a warning concerning the limitations of follow-up studies.

Program evaluation is not a one-time procedure, but rather a continuing process in which follow-up studies play an important part. deVoes and Hawk (1983) maintained that follow-up studies are one facet of larger evaluation designs. Such studies have as their primary purpose the assessment and improvement of programs by means of evidence concerning the quality of program graduates. deVoes and Hawk mentioned that follow-up studies have been used to gather information related to graduates in different educational areas, such as teaching, medicine, law, dentistry, and engineering.

In discussing the purposes of follow-up studies in vocational education, McKinney (1971) concluded that such studies are one of the most important techniques for assessing educational-system outcomes. However, he recommended that the results of follow-up studies be combined with other findings to increase their credibility.

Wentling and Lawson (1980) maintained that follow-up studies are designed to evaluate program results: the graduate. They authors suggested that by obtaining information relating to former program participants, an educational institution may obtain relevant data regarding the adequacy or inadequacy of a program. For example, a follow-up study may be undertaken to assess the value of the courses and experiences provided to students during a program by examining present results.

Discussing program-evaluation procedures, Stake (1967) stressed the importance of including not only direct outcomes of a program that are evident, such as achievement records and grades, but to include other results that may not be available for measurement during the program or immediately afterwards. Such results can be measured only after a period of time has elapsed; they include application of the skills and knowledge acquired during the program, transfers, and relearning effects.

Nelson (1964) suggested that follow-up studies should be a continuing, periodic process by which to obtain relevant information relating to program improvement.

In discussing when follow-up studies should be conducted, Beaty (1969) stated that the best time to conduct a follow-up study of teacher-training programs is about three years after program completion. By that time, graduates would have had sufficient teaching experience to provide relevant information about the program, and yet they would still remember details about the program.

Recommendations should be a part of follow-up studies. Katz et al. (1981) suggested that the recommendations should be persuasive to the readers to whom they are addressed. Also, recommendations should include not only additions to a program, but also recommendations to delete parts of the program that graduates have found unuseful in their professional development.

Although follow-up studies are considered important to obtain information needed to improve educational programs, some authors have had reservations about them and have issued warnings about weaknesses inherent in this type of evaluative research. Nelson (1964) cautioned that one weakness of follow-up studies is the fact that there is no assurance that graduates' success or failure is the result of having participated in a program, because other factors may not have been accounted for. He suggested that although this is a limitation of follow-up studies, it is inherent in any social-science research.

Katz et al. (1981) conducted a mega-evaluation of teacher-training follow-up studies conducted in the United States. They concluded that follow-up studies in teacher training do not provide adequate information to decision makers because most of the

recommendations of such studies are conceptually weak and do not provide specific information to improve educational programs.

Follow-Up Studies in the United States Related to Teacher Training

Follow-up studies in the area of teacher training have been conducted for a long time in the United States. The literature review revealed many studies in which follow-up studies had been used to assess a program's influence on students and the importance of the training in their actual positions.

The review of literature on follow-up studies in teacher training showed that only a few such studies have been conducted on foreign students who returned to their own countries. These studies did not concern the influence of the program on students or the importance of their training in their actual positions.

In a follow-up survey, Stabler (1957) examined a group of graduates of the Master of Arts in Teaching program at Wesleyan University. He found that graduates were well satisfied with their work and employment conditions. In considering the characteristics of graduates, Stabler asserted that the relationship of graduates with professional associations was good, and members of their respective school communities held them in high esteem.

Goyen (1981) conducted a follow-up study of graduates of the Department of Adult Education of the University of the District of Columbia. His purpose was to obtain specific information related to how graduates from this department assessed the effectiveness of their

graduate experience and their current employment status. He analyzed the following information: (1) demographic characteristics, (2) graduates' primary purpose for having participated in the program, (3) current employment, (4) additional educational activities and plans, (5) overall characteristics of the adult education program, and (6) suggestions for changes in the program.

Golden and Lyons (1976) examined the perceptions of Master's Degree in Education graduates at Frostburg College. The researchers obtained information from graduates relating the effects of their program experiences on their professional growth and occupational performance.

Beaty (1969) conducted an institutional follow-up study at Middle Tennessee State University. The study included all 210 graduates of the class of 1964. He compared the percentage of graduates who were teaching with those who had left the profession. Beaty also analyzed the graduates' community participation, their participation in college organizations while in school, teaching positions as related to educational background, and information related to the relevance of course work for their positions.

deVoes and Hawk (1983) stated that developers of teacher-training programs need to know whether the training they provided prepared graduates who are not teaching, and whether graduates were prepared for their job responsibilities. Program developers also should know the needs, interests, and professional roles of those who

are not teaching. deVoës and Hawk proposed a follow-up study model with the following characteristics:

1. Begin to document the teachers' careers well before they graduate.
2. Emphasize measuring the overall impact of the training program.
3. Emphasize program evaluation and not teacher evaluation.
4. Emphasize the collection of truly salient data, such as teaching problems.
5. The information obtained should not be used for correlation purposes, but rather to assemble a profile of graduates that can then be used for personnel, curricular, or management decision making.

In summary, the findings of these follow-up studies have been valuable in providing some insight into what has been done in studies similar to the present undertaking. It is important, however, to remember that these findings cannot be applied directly to the Merida Program because of its special characteristics--a program developed by Michigan State University to be taught in Mexico with a waiver of campus residence.

Previous Studies Related to the Merida Program

The researcher, who is a graduate of the Merida Program, participated in two previous unpublished evaluative studies related to the program. One study, conducted in 1981, was an evaluation of the program as viewed by professors and participants (Pacheco et al., 1982). The second study was a follow-up of graduates one year after graduation (Pacheco, 1983).

Evaluative Study During
the Merida Program

The purpose of this study was to determine from students and participating professors the strengths and weaknesses of the program in order to discover the positive elements of the Merida Program and to reflect on its weaknesses. This study was conducted during the second half of the program and consisted of interviews with professors and participants, asking their opinions of the program. Among the findings of this evaluative study were the following:

1. Students and faculty found the Merida Program important and adequate to the Mexican educational system.

2. According to Michigan State University professors who participated in the Merida Program, students' performance was equal to or greater than that of students in regular groups in the College of Education at Michigan State University, East Lansing, although at the end of the program two professors noticed that some students were too dependent on others.

3. Students found course content useful for Mexican educational needs. They found 12 of the 13 courses given by Michigan State faculty to be important and helpful to solving Mexican educational problems.

4. Library and bibliographic resources were limited and not adequate for the program. Many students and faculty held this opinion.

5. Students and faculty considered that thesis support was not adequate for the following reasons: (1) There was no continuity in

advisement because of faculty rotation, and (2) There was a lack of adequate bibliographic resources.

Follow-Up Study One Year After Graduation

The second study was conducted one year after the completion of the Merida Program. The purpose of this study was to determine how graduates of the Merida Program assessed the effectiveness of their graduate experiences and to collect information regarding their employment status.

The first part of this study was to determine from participants their expectations for having participated in the program and what they considered they had obtained as a result of participating in the Merida Program.

The second part of the study was designed to obtain information related to what graduates were doing in their professional lives, their accomplishments during the first year after graduation. This included awards, articles published, and research projects. Participants were also to mention the obstacles they had encountered in reaching their professional goals.

The third part of the follow-up study conducted one year after graduation was to determine what graduates considered the most important concept they had learned from each professor during the program.

The fourth part of the study was intended to obtain information related to the possibility of developing a long-term relationship among graduates in order to develop a networking system.

Among the findings of the follow-up study conducted one year after graduation were the following:

1. Purpose for participating in the Merida Program: Most graduates responded that the main purpose for participating in the program had been to improve their teaching skills and/or knowledge in the area of education. Sixteen out of 19 respondents reported that they had achieved completely or substantially their purpose for participating in the program.

2. Professional roles of Merida Program graduates one year after graduation: Most of the graduates returned to work at the educational institutions at which they had been working before the program began. Findings revealed that the place of employment was an important factor in using the skills acquired during the program.

Technological-institute employees were placed in areas in which they could apply the knowledge and skills acquired during the program. University of Yucatan employees were placed in the same position they had had before the program began. The University made no effort to place them in other positions where they could apply the knowledge and skills acquired during the program. Employees of other institutions were placed in areas in which they could use their skills, or they found jobs in different institutions where they could use their skills. Two graduates started to work part time at the Technological Institute of Merida.

3. What graduates learned from program professors: When reporting what they had learned from each professor in the Merida

Program, graduates mentioned either items related to course content or characteristics of professors who had influenced them.

4. Graduates' networking: Graduates reported that it was important to maintain contact with other graduates. They also mentioned that it would be difficult for participants to maintain unity as a group all the time because of different areas of interest and places of employment.

CHAPTER III

METHODOLOGY

This evaluative study was designed to gather and analyze Merida Master's Degree Program in Education graduates' opinions of the benefits to their professional development of having participated in the Merida Program and their opinion of their impact on curricula and educational research in their places of employment. This chapter contains detailed information pertaining to the population of the study and the procedures and techniques used in collecting and analyzing the data.

The Population

The population of this follow-up study comprised all 23 graduates of the Merida Program. The program began in September 1980 with 24 participants. One participant dropped out during the first term. Twenty-one participants completed Michigan State University's requirements for their master's degree in December 1981, and the rest in March 1983. The researcher, who also was a graduate of the Merida Program, did not include himself in the study in order to avoid influencing the results.

Merida Program graduates were professionals in different areas such as engineering, psychology, law, and education. All graduates had

been working in education before the program began. They held positions as instructors, educational administrators, or both.

Design of the Study

The design of this follow-up study was based on the evaluation decision-making approach. Using this procedure enhanced the possibility of using the evaluation results. Patton (1978) emphasized two factors that should be considered in conducting evaluation studies:

1. Identification of relevant decision makers for the use of the evaluation.
2. Identification of relevant questions to be responsive to the needs and interests of specified audiences.

Identification of Interested Audiences

In identifying interested audiences, the researcher considered the educational authorities who had participated directly in the Merida Program. Three audiences who had participated directly in the Merida Program were identified:

- a. The Michigan State University College of Education coordinator and professors who participated in the Merida Program.
- b. The Technological Institute program coordinator and school administrators.
- c. Educational researchers of the Department of Research and Graduate Studies at Dirección General de Institutos Tecnológicos.

This audience was selected to give specific feedback information concerning the program to the individuals who were directly

involved with the Merida Program. At the same time, the information obtained in this follow-up study could be useful in increasing the knowledge base concerning the effect of an interinstitutional program with foreign students.

Identification of Relevant Questions

To obtain relevant questions for the identified audiences, the researcher held informal interviews with those audiences: the Michigan State University College of Education coordinator, three Michigan State University professors who had participated in the program, the Merida Technological Institute program coordinator, and educational researchers of the Direccion General de Institutos Tecnologicos. Concerns of the identified audiences were grouped in six evaluative questions:

1. What were the professional expectations of participants of the Merida Program?
2. What professional benefits did graduates consider they obtained from participating in the program?
3. What knowledge and skills did graduates consider they learned as a result of participating in the Merida Program?
4. What knowledge and/or skills acquired during the Merida Program were graduates using in their professional roles three years after graduation?
5. In what educational areas did graduates consider they had influenced significant changes in their places of employment?

6. What activities not provided during the Merida Program did graduates consider they needed in their professional roles?

Instrument Design

The instrument used to collect the data for this study, A Follow-Up Study Three Years After Graduation, was designed using a variety of sources. In the following paragraphs, the procedures of designing the instrument are explained and the instrument itself is described.

The instrument was developed in two stages. The first stage consisted in developing an instrument used to conduct a follow-up study of Merida Program graduates one year after graduation. The second stage consisted in developing the instrument used to gather data for this evaluative study by modifying the instrument used in the first follow-up study. Modification of the first instrument was based on the specific purpose of this evaluative study and on findings from the follow-up study of Merida Program graduates one year after graduation.

Stage 1

During fall 1982, almost one year after graduation, a follow-up study of the Merida Program graduates was conducted (Pacheco, 1983). The purpose of the 1982 follow-up study was to determine how graduates of the Merida Program assessed the effectiveness of their graduate experience and to collect information regarding their employment status.

The following specific information was obtained during the 1982 follow-up study: (1) graduates' purpose for having participated in the Merida Program, (2) graduates' accomplishments during the first year after graduation, (3) what graduates considered they had learned from the professors in the program, and (4) the possibility of developing a networking system among graduates.

To obtain information about instruments used in studies similar to the follow-up study conducted one year after graduation, an Educational Resources Information Center (ERIC) search was conducted. As a result of this search, the investigator found several studies that had been conducted in the United States related to evaluation of master's degree in education programs and teacher-training follow-up studies. No studies were found that related to master's degree programs in education for foreign students.

The data-gathering instruments used in United States follow-up studies, particularly those used by Goyen (1981), Golden (1976), and Dale (1975) in their studies of teacher preparation, were analyzed to determine the format of the questionnaire that would be used in the follow-up study one year after graduation.

Dale (1975) conducted a follow-up study of the Master of Science and Education Specialist Degree Program in Vocational Education. Dale's data-gathering instrument was designed to provide data to measure the effectiveness of the program as viewed by the graduates and their employers. The instrument was divided into four sections: (1) generalized program data, (2) specific program data,

(3) suggestions and comments concerning program improvement, and (4) a survey of graduates' employers.

Golden (1976) conducted a study related to the evaluation and effect of a Master of Education degree program as reported by program graduates. The purpose of Golden's evaluative study was to examine the satisfaction of master's degree graduates of Frostburg State College. The focus of the study was the effect of program experiences on participants' occupational and personal growth.

Golden used a four-part questionnaire to obtain the following information: (1) graduates' demographic data, (2) personal growth of participants, (3) opinions about the master's degree program in general, and (4) course evaluation feedback. This instrument was tested for its validity by a panel of experts and by field testing. Staff members were asked to complete the questionnaire as the written instructions directed and to report any ambiguities.

Goyen (1981) conducted a follow-up study of graduates of the University of the District of Columbia. The purpose of Goyen's study was to determine how all 367 graduates assessed the effectiveness of their graduate experience and to collect information regarding graduates' employment status.

Goyen prepared the data-gathering instrument and handled pre-testing and validity concerns. All faculty members of the Department of Adult Education evaluated the data-gathering instrument. Goyen's instrument contained five sections: (1) graduates' demographic data, (2) graduates' employment status, (3) further education or additional

academic degrees of graduates, (4) graduates' rating of the program, and (5) awards or recognition earned by graduates.

The data-gathering instrument for the follow-up study one year after graduation was developed in the following manner. A draft questionnaire was developed after reviewing the literature related to follow-up studies concerned with teacher-training programs and after consulting with the Merida Program coordinators and Michigan State University professors who had participated in the program. The draft instrument, written in Spanish, was constructed to answer the questions proposed by the interested audiences, taking into consideration the instruments used by Goyen, Golden, and Dole. The draft instrument was evaluated by three Mexican educators, two at the Technological Institute of Merida and one at the University of Yucatan. Their suggestions included changing some words, deleting repetitious items, and adding other items.

The educators' recommendations were incorporated into a second draft of the instrument, which was pilot tested by two Merida Program graduates, who answered the complete instrument. The researcher was present at the pilot testing to clarify any doubts about the instrument. Also, he observed how long it took respondents to answer all questions in the instrument so that he could tell graduates the approximate time required to complete the questionnaire. It took respondents about 90 minutes to complete the instrument. As a result of the pilot test, three ambiguous items were changed. After the

required changes were made, the final version of the instrument was printed.

Stage 2

The data-gathering instrument used in the follow-up study conducted three years after graduation was designed by modifying the instrument used in the study that took place one year after graduation. Modifications to the instrument was based on (1) the purpose of the three-year follow-up study, (2) findings of the first follow-up study, and (3) a review of pertinent literature. Instrument modification consisted in deleting items not relevant to this study, changing some items, and adding items to answer the evaluation questions identified by the interested audiences.

The investigator reviewed relevant follow-up studies relating to teacher training and other areas. This review included but was not limited to the studies by Dale (1975), Golden (1976), and Goyen (1981). In addition to these studies, follow-up studies related to other training areas were considered; these included research by Lawson (1982) and Naranjo (1966).

Lawson conducted a comparative follow-up study of M.S. and B.S. graduates in criminal justice ten years after graduation. The purpose of his study was to determine if there was a significant difference in the success or career progress of master's degree graduates in criminal justice as compared with bachelor's degree graduates in the same field.

Lawson examined the following dependent variables: (1) current compensation, (2) growth in compensation, (3) level of responsibility,

(4) change in relative position level, (5) attainment of top executive status, (6) present job satisfaction, (7) perception of success, and (8) level of job mobility.

A draft of the data-gathering instrument used in this study was developed after reviewing similar studies, taking into consideration the evaluative questions suggested by the identified audiences and modifying the instrument used in the follow-up study one year after graduation. The modifications consisted in deleting questions not relevant to the present study, adding or changing items as suggested by the identified audiences, and considering the findings of previous follow-up studies.

The draft of the instrument was submitted to three Michigan State University professors who had participated in the Merida Program. They were asked to review the draft and to make suggestions for improving its clarity and organizations. Their suggestions tended to form a cluster of similar items.

After the instrument had been modified, it was translated into Spanish and submitted for review to three Mexican educators, two at the Technological Institute and one at the University of Yucatan. They made suggestions to eliminate ambiguity and added two items.

The instrument was pilot tested by two graduates who completed the instrument while the researcher was present to clarify any doubts concerning the instrument and to observe how long it took them to answer all questions. It took them 30 minutes to complete the instrument. Two instructions needed clarification to eliminate

ambiguity. After the necessary modifications were made, the final version of the instrument was printed.

The Instrument

The research instrument used in this follow-up study contained five parts. The first part of the questionnaire consisted of 15 items related to the graduates' opinions of the benefits they expected (Part 1, Section I) and the benefits they felt they had obtained (Part 1, Section II) as a result of having participated in the Merida Program. The benefits were related to employment, recognition by others, educational knowledge, and/or skills. Also included were questions related to promotions or change of employment.

The second part of the research questionnaire comprised 25 items related to teaching, educational research, and administrative skills and/or knowledge. Graduates were asked to what degree they felt they had learned those items during the program (Part 2, Section I) and to what degree they were using those skills and/or knowledge in their professional roles. Some of these skills were taught during the program. Others were not directly related to courses or included in the curricula, but graduates may have acquired them as a result of having participated in the program.

Part three of the questionnaire comprised 14 questions related to educational areas in which graduates may have influenced significant changes in their places of employment. Graduates were asked if they

felt they had influenced significant changes in the following educational areas: (a) continuing education, (b) curriculum development, (c) teaching, and (d) educational research (Part 3, Section I). Graduates were also asked if they had organized and/or participated in different educational activities (Part 3, Section II).

The fourth part of the questionnaire contained 20 items (Part 4). Fifteen items were related to educational skills and/or skills graduates may have needed in their professional roles. These items had previously been identified either as not provided during the Merida Program, or else graduates thought they needed more of what was provided during the program. Five items were designed to identify additional skills or knowledge graduates may have needed in their professional roles.

The fifth part of the research questionnaire contained questions about place of employment at the beginning of the program (Part 5, Section I). This part also included questions related to graduates' places of employment and the position(s) they held in December 1984 (Part 5, Section II).

Procedure for Data Analysis

Sixteen Merida Program graduates (73% of the available population) responded to the questionnaire. They provided demographic data related to their professional educational roles in December 1984 and data pertinent to the six evaluative questions posed in this study.

Data from the questionnaires were coded and analyzed using descriptive statistics to illustrate patterns of response by items, means, frequencies, differences among means, and standard deviations.

CHAPTER IV

DATA ANALYSIS

This evaluative study was designed to gather and analyze Merida Program graduates' opinions related to the benefits to their professional development of having participated in the Merida Program, and their opinions related to their impact on curricula and educational research in their places of employment. Descriptive information resulting from the study is presented in this chapter.

Merida Program graduates' questionnaire responses provided demographic data related to their professional roles and their perceptions of the importance of the Merida Program to their professional growth. Questionnaire data were coded and analyzed using descriptive statistics to illustrate patterns of responses by items, means, frequencies, and standard deviations.

In succeeding pages, findings are presented for each item of the questionnaire. The data are presented in two parts. The first part contains the demographic information related to the graduates' employment. The second part pertains to the evaluative questions posed in this study.

Demographic Information About the Population

The population of this study comprised all 23 graduates of the Merida Program. The researcher, who also was a graduate of the Merida Program, did not include himself in the study to avoid influencing the results. Sixteen graduates (73%) of the available population responded to the questionnaire.

The total number of respondents comprised 16 graduates of the Merida Program. Of these graduates, ten were males and six were females. Data related to sex of participants are shown in Table 1.

Table 1.--Distribution of graduates by sex.

Graduates	Sex		Total Graduates
	Male	Female	
Respondents	10	6	16
Nonrespondents	4	3	7
Total	14	9	23

Participants were asked about their places of employment at the beginning of the Merida Program. Data related to this question are presented in Table 2.

Participants were also asked about their positions at the beginning of the program. Data related to this question are shown in Table 3.

Table 2.--Respondents' places of employment at the beginning of the Merida Program.

Place of Employment	Number	Percent
Technological Institute	8	50.0
University of Yucatan	4	25.0
Other institutions	4	25.0
Total	16	100.0

Table 3.--Respondents' positions at the beginning of the Merida Program.

Position	Number	Percent
Teacher	12	75.0
Administrator	2	12.5
Teacher/administrator	2	12.5
Total	16	100.0

The professional background of study participants was in different social and technological areas. At the beginning of the program, all respondents had been working at educational tasks. Data related to the professional background of participants are presented in Table 4.

Table 4.--Professional background of respondents.

Professional Background	Number	Percent
Engineering	6	37.50
Teaching	3	18.75
Chemistry	3	18.75
Psychology	2	12.50
Law	1	6.25
Odontology	1	6.25
Total	16	100.0

Analysis of Research Questions

Research Question 1

What were the professional expectations of participants in the Merida Program?

Graduates of the Merida Program were asked to respond to 14 items (see Questionnaire Part 1, Section I) identified as representing possible professional expectations, which graduates had stated previously. A four-point Likert-type scale was used, with 4 = I expected to obtain much of this item, 3 = I expected to obtain some, 2 = I expected to obtain a little, and 1 = I did not expect to obtain any of this item.

For purposes of data analysis, the following criteria were considered: Items with means in the range from 3.00 to 4.00 were considered as highly expected; items in the range from 2.50 to 2.99 were considered as moderately expected; items with a mean below 2.50 were considered as low expected.

To provide additional insight into the data, the 14 items were grouped into three categories: (1) Professional Growth, (2) Recognition, and (3) Learn About Educational Systems. Data related to graduates' expectations concerning Professional Growth are presented in Table 5.

Table 5.--Professional expectations of Merida Program graduates in the category of Professional Growth.

Item Expected	N	Mean	SD
Self-actualization	16	3.50 ^a	0.516 ^b
More satisfaction at work	16	3.38	0.885
Improve educational research techniques	16	3.38	0.885
Improve teaching techniques	16	3.31	0.793
Obtain a master's degree diploma	16	3.25	0.856
Obtain a better position	16	2.81	0.981
Salary increase	16	2.31	1.078
Change job	16	2.25 ^b	1.238 ^a

^aHighest value.

^bLowest value.

The highest-rated item was "Self-actualization" with an "expected" mean of 3.50 and a standard deviation of 0.516. The lowest "expected" item in the category of Professional Growth was "Change job" with an "expected" mean of 2.25 and the highest standard deviation of 1.238. Other items in this category that had an "expected" mean higher than 3.00 and therefore were considered very important were the following: "Have more satisfaction at work," "improve educational

research techniques," "Improve teaching techniques," and "Obtain a master's degree diploma."

Data related to graduates' expectations concerning Recognition are presented in Table 6. The highest-rated item in the Recognition category was "Have more recognition by peers" with an "expected" mean of 2.33 and a standard deviation of 0.816. The lowest "expected" items in this category were "Have more recognition by students" and "Have more recognition by society" with means of 2.00 and standard deviations of 1.033 and 0.966, respectively. None of the items in this category was considered very important; their "expected" means were no higher than 3.00.

Table 6.--Professional expectations of Merida Program graduates in the category of Recognition.

Item Expected	N	Mean	SD
Have more recognition by peers	16	2.33 ^a	0.976
Have more recognition by authorities	16	2.25	1.000
Have more recognition by students	16	2.00 ^b	1.033 ^a
Have more recognition by society	16	1.83 ^b	0.966 ^b

^aHighest value.

^bLowest value.

Data related to graduates' expectations in the category Learn About Educational Systems are presented in Table 7. The highest-rated item in this category was "Learn about the Mexican educational system" with a mean of 3.25 and a standard deviation of 0.577. "Learn about

the American educational system" had an "expected" mean of 2.19 and a standard deviation of 0.981. No additional items in this category were considered very important.

Table 7.--Professional expectations of Merida Program graduates in the category of Learn About Educational Systems.

Item Expected	N	Mean	SD
Learn about the Mexican educational system	16	3.25 ^a	0.577 ^b
Learn about the American culture	16	2.50	0.730
Learn about the American educational system	16	2.19 ^b	0.981 ^a

^aHighest value.

^bLowest value.

Research Question 2

What professional benefits did graduates consider they received from participating in the program?

Graduates of the Merida Program were asked to respond to 14 items identified as representing the benefits they may have obtained as a result of having participated in the program (see Questionnaire Part 1, Section II). A four-point Likert-type scale was used, with 4 = I obtained much of this item, 3 = I obtained some of this item, 2 = I obtained little of this item, and 1 = I obtained none of this item.

For purposes of data analysis, the following criteria were taken into consideration: Items with means in the range from 3.00 to 4.00 were considered "very well learned"; items in the range from 2.50 to 2.99 were considered "well learned."

To provide additional insight into the data, the 14 items were grouped into three categories: (1) Professional Growth, (2) Recognition, and (3) Learn About Educational Systems. Data related to Research Question 2 are presented in Tables 8 through 10.

Data related to the benefits obtained by graduates as they related to Professional Growth are shown in Table 8. Graduates rated "Obtain master's degree diploma" as the highest obtained item with a mean of 3.38 and a standard deviation of 0.719, followed by the item "Self-actualization" with a mean of 3.31 and a standard deviation of 0.704. Graduates rated "Change of job" as the lowest obtained item with a mean of 2.18 and a standard deviation of 0.931. Other items related to this category that had an "obtained" mean higher than 3.00 and therefore were considered very important were the following: "Have more satisfaction at work" and "Improve teaching techniques."

Table 8.--Professional benefits obtained by Merida Program graduates in the category of Professional Growth.

Item Expected	N	Mean	SD
Obtain master's degree diploma	16	3.38 ^a	0.719
Self-actualization	16	3.31	0.704
More satisfaction at work	16	3.25	1.000
Improve teaching techniques	16	3.25	0.577 ^b
Acquire a better position	16	2.94	0.929
Improve educational research techniques	16	2.81	0.834
Obtain salary increase	16	2.25	0.931
Change of job	16	2.19 ^b	1.328 ^a

^aHighest value.

^bLowest value.

Data related to the benefits obtained by graduates as they related to Recognition are included in Table 9. Graduates rated "Have more recognition by peers" as the highest obtained benefit in this category, with a mean of 2.80 and a standard deviation of 0.941. The item "Have more recognition by students" had the highest standard deviation of 1.250. There were no items with an "obtained" mean higher than 3.00, therefore being considered very important. Two items had an "obtained" mean in the range of 2.50 to 2.99, and were therefore considered important. These items were: "Have more recognition by students" and "Have more recognition by authorities."

Table 9.--Professional benefits obtained by Merida Program graduates in the category of Recognition.

Item Expected	N	Mean	SD
Have more recognition by peers	16	2.80 ^a	0.941 ^b
Have more recognition by students	16	2.69	1.250 ^a
Have more recognition by authorities	16	2.63	1.025
Have more recognition by society	16	2.31 ^b	1.078

^aHighest value.

^bLowest value.

Table 10 provides data concerning benefits obtained by Merida Program graduates in the category related to Learn About Educational Systems. The item "Learn about the American educational system" had the highest "obtained" mean of 2.81 and a standard deviation of 0.750.

The lowest "obtained" item in this category was "Learn about Mexican educational system" with a mean of 2.19 and a standard deviation of 0.834. The item "Learn about American culture" had an "obtained" mean of 2.81; thus the item was considered important because its mean was within the range of 2.50 to 2.99.

Table 10.--Professional benefits obtained by Merida Program graduates in the category of Learn About Educational Systems.

Item Expected	N	Mean	SD
Learn about American educational system	16	2.81 ^a	0.750 ^b
Learn about American culture	16	2.81 ^a	0.911
Learn about Mexican educational system	16	2.19 ^b	0.834 ^b

^aHighest value.

^bLowest value.

Congruence Between Expected and Obtained Professional Benefits

It was considered important to analyze the congruence between graduates' perceived expectations and the obtained benefits as seen by graduates. Data related to differences between "expected" and "obtained" means are presented in Table 11.

Eight of the 15 items had a higher value in their "obtained" mean than in their "expected" mean. Seven of the 15 items had lower values in their "obtained" means than in their "expected" means. The range of differences of means of the items that had a higher "obtained" than "expected" mean was from 0.13 for the item "Acquire a better

position" to 0.69 for the item "Have more recognition by students." The latter item also had the lowest value of 0.01 for the differences between "expected" and "obtained" standard deviations.

Table 11.--Differences between means of expected and obtained professional benefits as reported by Merida Program graduates.

Benefit	Mean		Absolute Difference of Means
	Expected	Obtained	
<u>Higher "Obtained" than "Expected"</u>			
Acquire a better position	2.81 ^a	2.94 ^a	0.13 ^b
Learn about the American culture	2.50	2.81	0.31
More recognition by authorities	2.25	2.63	0.38
More recognition by peers	2.22	2.80	0.58
Learn about American educ. system	2.19	2.81	0.62
More recognition by students	2.00 ^b	2.69	0.69 ^a
More recognition by society	2.00 ^b	2.31 ^b	0.31
<u>Lower "Obtained" than "Expected"</u>			
Self-actualization	3.50 ^a	3.31 ^a	0.19
Improve educ. res. techniques	3.38	2.81	0.57 ^a
More satisfaction at work	3.38	3.25	0.13
Learn about Mexican educ. system	3.25	2.81	0.44
Improve teaching techniques	3.31	3.25	0.06 ^a
Salary increase	2.31	2.25	0.06 ^a
Change of employment	2.25 ^b	2.19 ^b	0.06 ^a

^aHighest value.

^bLowest value.

The range of differences of means of the items that had a lower "obtained" than "expected" mean was from 0.06 for the item "Salary

increase" to the value of 0.57 for the item "Improve educational research techniques." The item "Learn about the American educational system" had an "expected" mean of 3.25 and an "obtained" mean of 2.81.

Research Question 3

What knowledge and skills did graduates consider they learned as a result of participating in the Merida Program?

Graduates of the program were asked to respond to a total of 25 items designed to provide data to answer this research question (see Questionnaire Part 2, Section I). A four-point Likert-type scale was used, with 4 = I learned a lot, 3 = I learned some, 2 = I learned a little, and 1 = I did not learn any.

For purposes of data analysis, the following criteria were taken into consideration: Items with means in the range of 3.00 to 4.00 were considered very important; items in the range of 2.50 to 2.99 were considered important. To provide additional insight into the data, the 25 items were grouped into three groups: (1) Educational Research Techniques, (2) Teaching Techniques, and (3) Administrative and Leadership Skills.

Data related to graduates' perceptions of the skills and knowledge obtained during the Merida Program in the area of Educational Research Techniques are included in Table 12. The highest-rated item in this category was "Educational research methods" with a mean of 2.88 and a standard deviation of 0.719. The lowest-rated "learned" item in this category was "Instructional evaluation" with a mean of 2.38 and a

standard deviation of 0.806. In addition, the item "Identify educational research problems" obtained the highest standard deviation of 0.816 and a mean of 2.50.

None of the items in this category had a mean higher than 3.00. Three additional items had means between 2.50 and 3.00, indicating they were considered important. Those items were: "Write educational research projects," "Program evaluation," and "Identify educational research problems."

Table 12.--Skills and knowledge learned during the Merida Program in the category of Educational Research Techniques.

Item Learned	N	Mean	SD
Educational research methods	16	2.88 ^a	0.719
Write educational research projects	16	2.73	0.799
Program evaluation	16	2.63	0.619 ^a
Identify educational research problems	16	2.50	0.816 ^b
Institutional evaluation	16	2.38 ^b	0.806

^aHighest value.

^bLowest value.

Data related to graduates' perceptions of the skills and knowledge obtained during the Merida Program in the area of Teaching Techniques are shown in Table 13. The highest-rated item was "Use of behavioral objectives" with a "learned" mean of 3.06 and a standard deviation of 0.680. The lowest-rated "learned" item in this category

was "Mexican educational policy" with a "learned" mean of 1.92 and a standard deviation of 0.574.

In this category one more item had a mean between 3.00 and 4.00 and was therefore considered very important; it was "Adult education theories." In addition, six items had means between 2.50 and 2.99 and thus were considered important. They were: "Motivating students," "Teaching techniques," "Student testing," "Learning theories," "Design of audiovisual aids, and "Use of audiovisual aids."

Table 13.--Skills and knowledge learned during the Merida Program in the category of Teaching Techniques.

Item Learned	N	Mean	SD
Use of behavioral objectives	16	3.06 ^a	0.680
Adult education theories	16	3.00	0.730
Motivating students	16	2.94	0.680
Teaching techniques	16	2.81	0.810
Student testing	16	2.69	0.946
Learning theories	16	2.67	0.947 ^b
Design of audiovisual aids	16	2.56	0.629
Use of audiovisual aids	16	2.53	0.640
Team learning	16	2.13	0.719
Mexican educational policy	16	1.94 ^b	0.574 ^a

^aHighest value.

^bLowest value.

Data related to graduates' perceptions of the skills and knowledge obtained during the Merida Program in the area of Administrative Skills are included in Table 14. The highest-rated item in this category was "Leadership" with a "learned" mean of 2.93 and a standard

deviation of 1.100. The lowest-rated "learned" items in the Administrative Skills category were "Group dynamics" and "Oral communications," both with a mean of 2.19 and a standard deviation of 0.834.

Table 14.--Skills and knowledge learned during the Merida Program in the category of Administrative Skills.

Item Learned	N	Mean	SD
Leadership	16	3.00 ^a	0.632
Organization	16	2.94	0.772
Decision making	16	2.75	0.577 ^a
Team working	16	2.63	0.885
Program planning	16	2.56	0.727
Organizational change	16	2.50	0.730
Written communications	16	2.33	0.816
Organizational theory	16	2.31	0.704
Oral communications	16	2.19 ^b	0.834 ^a
Group dynamics	16	2.19 ^b	0.834 ^a

^aHighest value.

^bLowest value.

Research Question 4

What knowledge and/or skills acquired during the Merida Program were graduates using in their professional roles three years after graduation?

Program graduates were asked to respond to 25 items designed to provide data for answering this research question (see Questionnaire Part 2, Section II). A four-part Likert-type scale was used, with 4 = Using this item a lot in my actual professional role, 3 = Using some of this item in my actual professional role, 2 = Using a little of

this item in my actual professional role, and 1 = I am not using this item in my actual professional role.

For purposes of data analysis, the following criteria were taken into consideration: Items with means in the range between 3.00 and 4.00 were considered very important; items in the range from 2.50 to 2.99 were considered important. To provide additional insight into the data, the 25 items were categorized into three groups: (1) Educational Research Techniques, (2) Teaching Techniques, and (3) Administrative Skills.

Data related to graduates' rating of the Educational Research Techniques used in their professional roles three years after graduation are shown in Table 15. The items "Educational research methods" and "Identify educational research problems" were rated the highest, with a "using" mean of 3.07 and standard deviations of 1.030 and 0.799, respectively. The lowest-rated "using" item in this category was "Institutional evaluation" with a mean of 2.27 and a standard deviation of 1.100.

The item "Write educational research proposals" had a mean of 3.00; therefore, it was considered very important. No additional items were in this range or in the range between 2.50 and 2.99.

Table 15.--Skills and knowledge used by Merida Program graduates in their professional roles three years after graduation in the category of Educational Research Techniques.

Item Used	N	Mean	SD
Educational research methods	16	3.07 ^a	1.030
Identify educational research methods	16	3.07 ^a	0.799 ^b
Write educational research proposals	16	3.00	1.040
Program evaluation	16	2.40	0.910
Institutional evaluation	16	2.27 ^a	1.100 ^a

^aHighest value.

^bLowest value.

Data related to graduates' ratings of the Teaching Techniques used in their professional roles three years after graduation are shown in Table 16. The item "Use of behavioral objectives" was rated the highest with a "using" mean of 3.40 and a standard deviation of 0.737. the lowest-rated "using" item in this category was "Design of audio-visual aids," with a mean of 2.27 and a standard deviation of 0.961. In addition, the item "Use of audiovisual aids" had the highest standard deviation of 1.019 and a mean of 2.50.

Three additional items had a "using" mean between 3.00 and 4.00 and therefore were considered very important: "Teaching techniques," "Motivating students," and "Student testing." Three items had a "using" mean between 2.50 and 2.99 and thus were considered important: "Learning theories," "Team learning," and "Use of audiovisual aids."

Table 16.--Skills and knowledge used by Merida Program graduates in their professional roles three years after graduation in the category of Teaching Techniques.

Item Used	N	Mean	SD
Use of behavioral objectives	16	3.40 ^a	0.737 ^b
Teaching techniques	16	3.33	0.816
Motivating students	16	3.13	0.743
Student testing	16	3.00	0.926
Learning theories	16	2.80	0.941
Team learning	16	2.67	0.900
Use of audiovisual aids	16	2.50	1.019 ^a
Mexican educational policy	16	2.47	0.990
Adult education theories	16	2.40	0.910
Design of audiovisual aids	16	2.27 ^b	0.961

^aHighest value.

^bLowest value.

Data related to graduates' ratings of the Administrative Skills used in their professional roles three years after graduation are shown in Table 17. The item "Oral communications" was rated the highest with a "using" mean of 3.40 and a standard deviation of 0.507. The lowest-rated "using" item was "Organizational theory" with a mean of 2.47 and a standard deviation of 0.990. In addition, the items "Organization" and "Decision making" had the same "using" mean of 3.13 with standard deviations of 1.060 and 0.743, respectively. The items "Written communications" and "Program planning" had the same "using" mean of 3.07 with standard deviations of 0.829 and 0.884, respectively.

In addition, the item "Team working" had a mean between 3.00 and 4.00; therefore, it was considered very important. Three items had

means between 2.50 and 2.99 and thus were considered important. They were: "Leadership," "Group dynamics," and "Organizational change."

Table 17.--Skills and knowledge used by Merida Program graduates in their professional roles three years after graduation in the category of Administrative Skills.

Item Used	N	Mean	SD
Oral communications	16	3.40 ^a	0.507 ^a
Team working	16	3.27	0.704
Organization	16	3.13	1.065
Decision making	16	3.13	0.743
Written communications	16	3.07	0.884
Program planning	16	3.07	0.884
Leadership	16	2.93	1.100
Group dynamics	16	2.87	0.834
Organizational change	16	2.53	1.130 ^b
Organizational theory	16	2.47 ^b	0.990

^aHighest value.

^bLowest value.

Congruence Between Skills and Knowledge
Acquired During the Merida Program and
Skills and Knowledge Used in the Actual
Professional Roles of Graduates

It was considered important to analyze the congruence between the skills and knowledge acquired during the Merida Program and those skills and knowledge the graduates considered they were using in their actual professional roles. Data were analyzed to determine the differences between the means of the "learned" and "using" skills and

knowledge as reported by Merida Program graduates. Data related to this congruence are presented in Table 18.

Table 18.--Differences between the means of skills and knowledge learned during the Merida Program and means of skills and knowledge used in the professional roles of the graduates.

Skill or Knowledge	Mean		Absolute Difference of Means
	Using	Learned	
<u>Higher "Using" Than "Learned" Mean</u>			
Oral communications	3.40	2.19	1.21 ^a
Written communications	3.07	2.33	0.74
Group dynamics	2.87	2.19	0.68
Team working	3.27	2.63	0.64
Identify educ. research problems	2.07	2.50	0.57
Team learning	2.67	2.13	0.54
Mexican educational policy	2.47 ^b	1.94 ^b	0.53
Teaching techniques	3.3	2.81	0.52
Program planning	3.07	2.56	0.51
Decision making	3.13	2.75	0.38
Use of behavioral objectives	3.42 ^a	3.06 ^a	0.34 ^b
<u>Lower "Using" Than "Learned" Mean</u>			
Adult education theories	2.40	3.00 ^a	0.60 ^a
Design of audiovisual aids	2.27 ^b	2.56	0.29
Program evaluation	2.40	2.63	0.23
Institutional evaluation	2.27	2.38 ^b	0.11
Leadership	2.93 ^a	3.00 ^a	0.07
Use of audiovisual aids	2.50	2.53	0.03 ^b

^aHighest value.

^bLowest value.

Nineteen items had a higher "using" than "learned" mean value; the range of the values for differences between means varied from 0.03

Loving, affectionate, and has a good sense of humor. Not shy, likes grown-ups to talk to him.

g. Smart, comes up with ideas. Strong willed or stubborn. She does share with people. She can be neat once in a while. She does talk back and fights but is starting to get along.

h. He is not all together. He gets too angry. When he is good he is happy. He is more introspective. He can enjoy things for himself--doesn't need for everyone else to know.

i. He likes to be with adults. He is curious about a lot of things. He stays at a task longer and remembers quite a bit about what happened a long time ago. He doesn't understand why if someone is your friend why they might do something to hurt him.

Question 2: As a parent what concerns you most about your child?

a. The state the world is in. Hard to raise a child with so much garbage thrown at them. They can't tell what is right or wrong. To help her be able to decide right to ask why.

b. I am concerned about school. She is very intelligent but she doesn't display it always. I had a terrible school experience and I don't want her to have a difficult time. If I have to force her to come to school, she can get very stubborn.

c. I am worried about the separation from my husband and she is handling it. Concerned that she doesn't have her father and that her father is black. Keeping up with her as she has boundless energy

graduates (50%) felt they had influenced significant changes in the area of educational research.

Table 19.--Educational areas in which graduates considered they had influenced significant changes.

Areas	Yes		No		Total	
	No.	%	No.	%	No.	%
Teaching	14	87.5	2	12.5	16	100
Educational research	8	50.0	8	50.0	16	100
Curriculum development	8	50.0	8	50.0	16	100
Continuing education	7	43.8	9	56.2	16	100

The educational area in which the highest number of Merida Program graduates considered they had influenced significant changes was teaching. Fourteen graduates (87.5%) responded "yes" to this item and four (12.5%) responded "no." The educational area in which the lowest number of graduates considered they had influenced significant changes was continuing education. Seven graduates (43.8%) responded "yes" to this item and nine (56.2%) responded "no."

Participation in Educational Activities

Ten items asked graduates whether they had organized and/or participated in different educational activities. Graduates indicated whether they had participated in a particular activity or not (see Questionnaire Part 3, Section II). Data representing graduates' responses in this area are presented in Table 20.

Table 20.--Educational activities that Merida Program graduates had organized or in which they had participated.

Areas	Yes		No		Total	
	No.	%	No.	%	No.	%
Teach continuing education courses	9	56.2	7	43.8	16	100
Organize continuing education courses	7	43.8	9	56.2	16	100
Curriculum development	9	56.2	7	43.8	16	100
Participated as learner in continuing education courses	11	68.8	5	32.2	16	100
Participated in educational research activities	12	75.0	4	25.0	16	100
Presented educational research proposal(s)	4	25.0	12	75.0	16	100
Used results of your thesis	4	25.0	12	75.0	16	100
Teach educational research courses	10	62.5	4	37.5	16	100
Teach teaching techniques	8	50.0	8	50.0	16	100

The educational area in which the highest number of graduates had participated was "Participated in educational research activities." Twelve graduates (75%) had participated in this activity. The educational areas in which the lowest number of graduates had participated were "Use the results of your thesis" and "Presented an educational research proposal." Four graduates (25%) had participated in these activities.

Research Question 6

What activities not provided during the Merida Program did graduates consider they needed in their professional roles?

Graduates were asked to respond to 15 items related to educational skills and knowledge not provided during the Merida Program, but which graduates felt they needed in fulfilling their professional roles. Graduates were also asked to suggest other educational skills or knowledge, not listed on the questionnaire, that were required in their profession but had not been provided during the Merida Program.

A four-point Likert-type scale was used, with 4 = I need this item a lot, 3 = I need some of this item, 2 = I need this item a little, and 1 = I do not need this item (see Questionnaire Part 4, Section I). Data pertinent to graduates' responses to these questions are shown in Table 21.

The item with the highest mean was "Human relations" with a mean of 3.33 and a standard deviation of 0.724. The lowest-rated item was "Learning disabilities" with a mean of 2.22 and a standard deviation of 0.245. Graduates suggested seven additional items related to different areas of education, including research, planning educational programs, and administration.

Table 21.--Knowledge and/or experiences not provided during the Merida Program that graduates felt they needed in fulfilling their professional roles.

Item Learned	N ^a	Mean	SD
Human relations	15	3.33 ^b	0.724
Practical experiences in educ. research	15	3.13	0.990
Curriculum construction in tech. education	15	3.05	0.856
Administration of educational institutions	15	3.02	0.965
Techniques for teaching mathematics	15	3.01	0.790
Interpretation of statistical data	15	2.93	1.033
Administration of educational programs	15	2.90	0.785
Teacher evaluation	15	2.87	1.187
Program planning	15	2.87	0.876
Use of computers in education	15	2.65	1.207 ^b
Nonformal education	15	2.57	0.850
Statistics	15	2.47	0.934
Student career advisement	15	2.43	0.963
Evaluating learning environments	15	2.38 ^c	1.030 ^c
Learning disabilities	15	2.22 ^c	0.245 ^c

ITEMS SUGGESTED BY GRADUATES

More adult-education courses
 More nonformal education courses
 Interdisciplinary research
 Building of theoretical framework
 Participate in national, international, and regional forums
 Design of educational programs
 Design of organizational and procedural manual

^aOnly 15 Merida Program graduates responded to this item.

^bHighest value.

^cLowest value.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This evaluative study was designed to determine the opinions of graduates concerning the benefits to their professional development as a result of having participated in the Merida Program, and their opinions about their impact on curricula and educational research in their places of employment. Chapter V is divided into three main sections: summary, conclusions, and recommendations.

Summary

The Merida Master's Degree Program in Education was conducted as part of an institution-strengthening agreement between Michigan State University and the Technological Institute of Merida. The goals of the program were developed to improve the educational and administrative skills of participants.

Twenty-four participants began the program in September 1980; one participant dropped out of the program for personal reasons during the first term of the program. Twenty-three individuals completed all Michigan State University requirements for obtaining their master's degree in December 1981.

The purposes of this study were to determine, three years after completion of the program, the perceptions of graduates concerning the

benefits to their professional development as a result of having participated in the Merida Program, and to determine their perceptions of their impact in the educational institutions where they worked.

The study population comprised all 23 graduates of the Merida Program. The researcher was able to collect information for the study from 16 program graduates (73% of the available population). The researcher, who is a graduate of the Merida Program, did not include himself in the study so as to avoid influencing the results.

The following questions were examined in this study:

1. What were the professional expectations of participants of the Merida Program?
2. What professional benefits did graduates consider they obtained from participating in the program?
3. What knowledge and skills did graduates consider they learned as a result of participating in the Merida Program?
4. What knowledge and/or skills acquired during the Merida Program were graduates using in their professional roles three years after graduation?
5. In what educational areas did graduates consider they had influenced significant changes in their places of employment?
6. What activities not provided during the program did graduates consider they needed in their professional roles?

The literature review contained references to articles from books, dissertations, and specialized journals related to the following areas: development of higher education in Mexico, program evaluation,

purposes and uses of follow-up studies, follow-up studies of teacher-training programs, and previous studies related to the Merida Program.

A questionnaire was developed to collect the data for this study, in order to obtain relevant information related to the evaluation questions. The questionnaire was designed in two stages and using a variety of sources, primarily previous teacher-training follow-up studies conducted in the United States and findings of a follow-up study of Merida Program graduates one year after graduation.

Graduates were asked to respond to the questionnaire developed for this study. Data from the questionnaires were coded and analyzed using descriptive statistics to illustrate patterns of responses by items, means, frequencies, and standard deviations. The following criteria were used: Item with means in the range from 3.00 to 4.00 were considered very important; items with means in the range from 2.50 to 2.99 were considered important.

Results of the data analysis were presented in two sections in Chapter IV. Demographic information related to the graduates' employment was presented first, followed by the data concerning the evaluative questions posed in the study.

Conclusions

According to the statistical analysis, and taking into consideration the characteristics of this study, the following conclusions were drawn from the data collected from Merida Program graduates and reported in Chapter IV.

1. International collaborative educational programs can enhance the professional development of educators.
2. Merida Program graduates appeared to be satisfied with their professional development as a result of having participated in the program.
3. Merida Program graduates perceived that they had influence on significant changes in the areas of teaching and educational research at their places of employment.
4. Merida Program graduates perceived that they were using, in their professional roles, most of the skills and/or knowledge learned during the Merida Program.
5. Follow-up studies related to graduates of educational programs are legitimate methods for gathering evaluative data regarding the adequacy or inadequacy of such programs.
6. Findings from follow-up studies can be information sources regarding skills learned during an educational program and those that are used in the professional roles of graduates.
7. Findings from follow-up studies can be information sources regarding the professional expectations of educational program graduates and their professional benefits for having participated in such programs.

Recommendations

Based on the results of this study, the following recommendations are presented for consideration in further studies:

1. Those who conduct future follow-up studies should investigate why some skills learned during a program are perceived as not being used in graduates' professional roles.

2. Those who conduct future follow-up studies should investigate how graduates acquire skill and knowledge used in their professional roles that are not learned during a formal program.

3. A follow-up study should focus on dimensions other than the perceptions of the graduates of a program.

4. Participants in teacher-training programs should be encouraged to evaluate and conduct follow-up studies of their program, from the inception of the program.

5. Follow-up studies of teacher-training programs should focus on specific educational areas, such as teaching or educational research, to obtain detailed information in these areas.

6. The format of the data-gathering instrument used in this study, comparing the expected and the obtained professional benefits of a program, should be employed in future follow-up studies.

7. The format of the data-gathering instrument used in this study, comparing the skills and knowledge learned during a program and those perceived as being used in the professional roles of graduates, should be employed in future follow-up studies.

APPENDIX

On the left column please circle the number which indicates the degree that you expected to obtain this benefit as a result of having participated in the program. Please rate according to the following scale.

1 = I did not expect this benefit.
2 = I expected a little of this benefit.
3 = I expected some of this benefit.
4 = I expected a lot of this benefit.

1 = I did not obtain this benefit.
2 = I obtained a little of this benefit.
3 = I obtained some of this benefit.
4 = I obtained a lot of this benefit.

- | | | | | | |
|---|---|---|---|-----|---|
| 1 | 2 | 3 | 4 | 1. | More satisfaction at work |
| 1 | 2 | 3 | 4 | 2. | A better position |
| 1 | 2 | 3 | 4 | 3. | Salary increase |
| 1 | 2 | 3 | 4 | 4. | Change of job |
| 1 | 2 | 3 | 4 | 5. | More recognition by students |
| 1 | 2 | 3 | 4 | 6. | More recognition by peers |
| 1 | 2 | 3 | 4 | 7. | More recognition by superiors |
| 1 | 2 | 3 | 4 | 8. | More recognition by society |
| 1 | 2 | 3 | 4 | 9. | Self-actualization |
| 1 | 2 | 3 | 4 | 10. | Learn about education in the U.S.A. |
| 1 | 2 | 3 | 4 | 11. | Learn about American culture |
| 1 | 2 | 3 | 4 | 12. | Learn about education in Mexico |
| 1 | 2 | 3 | 4 | 13. | Improve teaching techniques |
| 1 | 2 | 3 | 4 | 14. | Obtain a master's degree |
| 1 | 2 | 3 | 4 | 15. | Improve educational research techniques |

PART 2

The following items represent the skills, knowledge and attitudes that you may have acquired during the Merida Program.

On the left column, please circle the number which indicates the degree to which you feel that you learned each item during the Merida Program. Please rate each item according to the following scale:

- 1 = I did not learn this item during the program.
- 2 = I learned a little of this item during the program.
- 3 = I learned some of this item during the program.
- 4 = I learned a lot of this item during the program.

On the right column, please circle the number which indicates the degree to which you feel that you are using each item in your professional role. Please rate each item according to the following scale:

- 1 = I am not using this item in my professional role.
- 2 = I am using a little of this item in my professional role.
- 3 = I am using some of this item in my professional role.
- 4 = I am using a lot of this item in my professional role.

SECTION I

SECTION II

LEARNED

USING

1 2 3 4	Program planning	1 2 3 4
1 2 3 4	Program evaluation	1 2 3 4
1 2 3 4	Motivating students	1 2 3 4
1 2 3 4	Use of audiovisual aids	1 2 3 4
1 2 3 4	Design of audiovisual aids	1 2 3 4
1 2 3 4	Group dynamics	1 2 3 4
1 2 3 4	Team learning	1 2 3 4
1 2 3 4	Team working	1 2 3 4
1 2 3 4	Use of behavioral objectives	1 2 3 4
1 2 3 4	Oral communications	1 2 3 4
1 2 3 4	Written communications	1 2 3 4
1 2 3 4	Organization	1 2 3 4
1 2 3 4	Leadership	1 2 3 4
1 2 3 4	Decision making	1 2 3 4
1 2 3 4	Learning theories	1 2 3 4
1 2 3 4	Adult education theories	1 2 3 4
1 2 3 4	Organizational change	1 2 3 4
1 2 3 4	Organizational theory	1 2 3 4
1 2 3 4	Mexican education policy	1 2 3 4
1 2 3 4	Educational research methods	1 2 3 4
1 2 3 4	Write educational research proposals	1 2 3 4
1 2 3 4	Identify educational research problems	1 2 3 4
1 2 3 4	Institutional evaluation	1 2 3 4
1 2 3 4	Student evaluation	1 2 3 4

PART 3

The following items relate to activities which you have performed in the institution where you work.

SECTION I: Please answer briefly the following questions.

1. Do you consider that you have influenced significant changes in the following areas?

A. Continuing Education	_____ NO	_____ YES
B. Curriculum Development	_____ NO	_____ YES
C. Teaching	_____ NO	_____ YES
D. Educational Research	_____ NO	_____ YES

Briefly describe how you consider that you have influenced those changes, or why you consider that you have not been able to influence significant changes.

SECTION II

2. Have you participated as an instructor in continuing education courses? _____ YES _____ NO
3. Have you organized continuing education courses? _____ YES _____ NO
4. Have you participated as a student in continuing education courses? _____ YES _____ NO
5. Have you participated in activities related to curriculum development? _____ YES _____ NO
6. Have you participated in activities related to educational research? _____ YES _____ NO
7. Have you presented an educational research proposal? _____ YES _____ NO
8. Have you used the results of your thesis? _____ YES _____ NO
9. Have you taught courses related to educational research? _____ YES _____ NO
10. Have you taught courses related to teaching techniques? _____ YES _____ NO

1 = I do not need it in my professional role.
2 = I need a little of it in my professional role.
3 = I need some of it in my professional role.
4 = I need a lot of it in my professional role.

- [illegible]

PART 5

SECTION I

1. Main place of employment at the beginning of the Merida Program:
☐ Technological Institute
☐ University of Yucatan
☐ Other institution (Please specify) _____

2. Before the Merida Program, what was your main position in your main place of employment?
☐ Teacher
☐ Administrator
☐ Teacher and administrator
☐ Other

3. Have you been promoted since you finished the master's program?
☐ NO ☐ YES

The main reason for the promotion was:

- ☐ Master's degree diploma
☐ Knowledge and skills acquired during the program
☐ Diploma and skills acquired during the program
☐ Political decision
☐ Other (Please indicate) _____

4. Have you changed jobs since you finished the master's program?
☐ NO ☐ YES

The main reason for obtaining the new position was:

- ☐ Master's degree diploma
☐ Knowledge and skills acquired during the program
☐ Political decision
☐ Other (Please indicate) _____

SECTION II

Actual main place of employment _____

Hours per week working as teacher _____

Hours per week working as administrator _____

Hours per week working in other activities _____

Second place of employment _____

Hours per week working as teacher _____

Hours per week working as administrator _____

Hours per week working in other activities _____

Third place of employment _____

Hours per week working as teacher _____

Hours per week working as administrator _____

Hours per week working in other activities _____

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