Report of an Internship in the Office of Curriculum Planning and Evaluation in Grand Rapids Public Schools

Joseph Steven Miller
Western Michigan University

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A REPORT OF AN INTERNSHIP IN THE OFFICE
OF CURRICULUM PLANNING AND EVALUATION
IN GRAND RAPIDS PUBLIC SCHOOLS

by

Joseph Steven Miller

A Project Report
Submitted to the
Faculty of the Graduate College
in partial fulfillment
of the
Specialist in Education Degree

Western Michigan University
Kalamazoo, Michigan
December, 1978
ACKNOWLEDGEMENTS

In completing a very rewarding internship, the intern would like to thank those persons who made it a growth producing experience. Their time, energy, and thoughtfulness were inspirational.

Dr. Carol F. Sheffer, of the Department of Educational Leadership, Western Michigan University, advised the intern. She provided insight and clarity to the experience and aided greatly in the internship report.

The entire staff at the Office of Curriculum Planning and Evaluation, Grand Rapids Public Schools, made the internship more rewarding by their acceptance of the intern. Mr. William E. Reaves, the director of the OCPE, and Lawrence Erickson, the assistant director, provided much guidance and insight. Ms. Jackie Zinn spent considerable time, energy, and guidance through the computer portion of the work. Dr. Walter Burt helped with the research and writing portions of the report.

Fellow educators at Coopersville Area Public Schools provided help and encouragement in solving the inter-role conflicts that occurred. Mr. Clarence C. Mason, Superintendent of CAPS, provided the flexibility in work schedule that allowed special experiences to occur. Sue Angell replaced the intern in his absence from Alternative Education. She also provided invaluable advice and direction through the analysis and reporting of the internship experience.

My wife Mary and my children Steve, Monica, Audra, and Garth provided their love and understanding throughout the entire Specialist
program and made any accomplishments possible.

Joseph S. Miller
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WESTERN MICHIGAN UNIVERSITY, ED.S., 1978
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CHAPTER I

Introduction

This report describes an internship experience completed at the Office of Curriculum Planning and Evaluation, Grand Rapids Public Schools (GRPS) during the 1977-78 school year. GRPS is a large school system which serves a city of 400,000 people in Western Michigan. It provides educational services to 29,000 K-12 students and has fifty-one elementary buildings, five middle schools, four junior high schools, four high schools, five alternative schools, and one junior college.

Grand Rapids Public Schools, with its wide variety of programs and activities and its abundant educational resources, provided an exceptional environment for an internship. Within GRPS, the intern chose to work in the Office of Curriculum Planning and Evaluation (OCPE). The activities of the office offered opportunities for growth that could best meet the intern's needs and interests.

Structurally, the OCPE was a component of the central office administration of Grand Rapids Public Schools. Mr. William E. Reaves, the office director, reported directly to Dr. Phillip Runkel, Superintendent of GRPS. Mr. Reaves was a member of a seventeen person cabinet that directed many of the affairs of GRPS. Much of the policy adopted by the Grand Rapids Board of Education was formulated at this organizational level. The OCPE activities had much impact on district wide concerns. The main purposes of the OCPE were to: lead curriculum planning, initiate and develop programs, coordinate testing services, and evaluate programs within Grand Rapids Public Schools. The principal

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activities of the office included: conducting needs assessments for schools and for programs, meeting the evaluation requirements for various programs, providing testing services, maintaining and reporting student achievement information, developing in-service programs, and conducting research studies. The OCPE employed fourteen professional educators and twelve supporting staff members. The office also employed several consultants and other short-term workers.

The internship was conducted during the 1977-78 school year and extended intermittently throughout the summer. Most of the contact with the OCPE was planned for late afternoon and averaged ten hours per week. This schedule was necessary in order to conform to the contractual obligations and program responsibilities that the intern had as Director of Alternative Education for Coopersville Area Public Schools.

The internship was shaped by two questions. What was the most appropriate background for a person who planned to become a leader in the area of curriculum development? What was the intern's level of professional development in these areas?

The primary objective of the internship was to prepare the intern for assuming the responsibilities of a leader in educational curriculum as those responsibilities might occur in a central office staff position. The internship addressed a number of expectations and responsibilities that were common to this type of administrative position. These expectations were as follows:

1. To become skillful in managing interaction within an immediate staff.
2. To develop a command of the discipline through knowledge of the historical, psychological, and sociological foundations of curriculum development.

3. To develop an awareness of the current topics and activities within the curriculum field.

4. To learn the procedure of planning methodology including modern approaches to collection of data, application of appropriate statistical analysis, assessment of program needs, formation of objectives, and creation of evaluation models.

5. To become skillful in the development and presentation of in-service programs.

The internship involved a secondary objective: the designing and conducting of a research study. The intern initiated and conducted a major research project which investigated the relationship between student mobility and academic achievement in Grand Rapids Public Schools. The process of designing and conducting this research study provided an opportunity for applying both conceptual and technical skills developed in the specialist program. This included an increase in the depth and breadth of understandings of computer processes. The abundant informational resources of the Office of Curriculum Planning and Evaluation were utilized in the research. This study was to have a direct influence on curricular policies within the Grand Rapids Public Schools.

The internship provided experiences that enabled greater understanding of curriculum. Knowledge of curriculum was expanded by the variety of printed documents that were utilized in this work. Contact with educational specialists provided the opportunity to discuss and clarify curricular topics.
Through educational and administrative activities, the intern observed and evaluated different leadership styles. This was enhanced by the large size of the school system and the complexity of the administrative structures.

There are apparent differences between what is described in this report and the original plan based on the prospectus written in the fall of 1977. These differences reflect the evolution of a broader internship experience which developed and focused on computer based research.
SPONSORING ORGANIZATION: Grand Rapids Public Schools

FIELD SUPERVISOR: Mr. William E. Reaves, Director of the Office of Curriculum Planning and Evaluation

UNIVERSITY ADVISOR: Dr. Carol F. Sheffer, Western Michigan University

MAJOR FOCUS OF EXPERIENCE: To conduct a major research study and participate in a variety of experiences related to the administrative processes involved in educational planning and evaluation.

DURATION: Approximately 24 weeks, commencing September 13, 1977.

RATIONALE:

The intern is currently employed with Coopersville Area Public Schools. His present position is director/teacher of a small alternative school within that system.

The intern's professional goal is to become a director of curriculum in a school system with a K-12 enrollment of 3,000-5,000 students. In attaining this goal, he plans to gain experience in a variety of administrative roles. The intern's educational goals center on gaining the skills and understandings necessary for directing curricular processes.

Over the last eleven years, the intern has had an opportunity to work with curricular development at the high school level. He has had some experience in development and evaluation of elementary curriculum.

In the intern's present role, he has an opportunity to work with program planning and evaluation on a micro-level. He also has an opportunity to work with staff development and evaluation on a small scale. While these responsibilities provide a considerable range of growth producing activities, the intern feels a need to broaden and deepen his experiences. He believes it would be advantageous for him to gain firsthand knowledge of educational planning and evaluation in a large urban school system.

The proposed internship will take place in the Office of Curriculum Planning and Evaluation in Grand Rapids Public Schools. The following excerpt from the OCPE "Office Policy and Procedure Handbook" gives an overview of the office's purposes.

The Office of Curriculum Planning and Evaluation was established in August 1974. Essentially, the Office has a single broad goal:
To provide information to key decision-making groups within the school district, to assist in the refinement of existing educational programs, and to support planning efforts for new programs for young people.

Thus, the Office constitutes a vital source of management and planning information. It addresses those needs of the district to develop more appropriate methods for the planning and evaluating instructional programs, using the results in decision making processes, and to coordinate and monitor existing and potential planning resources.

A more precise statement of goals for the Office of Curriculum Planning and Evaluation include:

2. Development of a staff training program for the Office.
3. Refinement of program evaluation system for the school district.
4. Refinement of district-wide testing programs.
5. Development of effective dissemination models for planning and evaluation results.
6. Development of planning processes and services for the system.
7. Development of additional state, local and federal funding sources to extend and continue operations of an Office of Curriculum Planning and Evaluation.

The proposed internship will build on the intern's experiences and goals. It will give him an opportunity to expand knowledge and develop skills which are required to meet his educational and professional goals.
# PROJECTED NATURE OF INTERNSHIP EXPERIENCE

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>EXPERIENCE AND CONTACTS</th>
<th>TERMINAL SKILLS</th>
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<tbody>
<tr>
<td><strong>A. CONCEPTUAL</strong></td>
<td>The intern will:</td>
<td>The intern will:</td>
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<tr>
<td>1. Understand the philosophy, goals, and procedures of the OCPE.</td>
<td>internalize the handbook for the OCPE.</td>
<td>understand why events and processes occur as they do within the OCPE.</td>
</tr>
<tr>
<td>2. Understand the flow of authority within the organization.</td>
<td>internalize the organizational chart for OCPE.</td>
<td>understand the process of how things get done through authority and responsibility.</td>
</tr>
<tr>
<td>3. Increase knowledge of the curricular processes.</td>
<td>read, examine, and discuss topics on curriculum.</td>
<td>conceptualize and communicate various curricular topics.</td>
</tr>
<tr>
<td>4. Acquire a better understanding of the K-8 testing program for GRPS.</td>
<td>work with the tests and test results, learning basic terms, ideas, and processes involved.</td>
<td>develop and work an entire testing program for a school system.</td>
</tr>
<tr>
<td><strong>B. HUMAN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Learn effective leadership skills for small group management.</td>
<td>attend, observe, and evaluate a variety of meetings at OCPE.</td>
<td>employ effective leadership in small groups.</td>
</tr>
<tr>
<td>2. Develop understanding of interpersonal relations that occur in OCPE.</td>
<td>observe and evaluate the quality of human relationships within the OCPE office.</td>
<td>develop strategies that enhance positive interpersonal relations with staff members.</td>
</tr>
<tr>
<td>3. Achieve the knowledge and skills necessary to conduct staff development.</td>
<td>work with the people involved in in-service and staff development plans at the OCPE.</td>
<td>be able to plan and carry out staff development programs.</td>
</tr>
<tr>
<td><strong>C. TECHNICAL</strong></td>
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</table>
1. **Become skillful** at identifying and defining research problems.  
   - Identify a specific research problem and define it to a point where research can be conducted.  
   - Clearly identify and define a research problem and defend why it should be researched.

2. **Develop the skill** required to design a research proposal.  
   - Design a viable research proposal.  
   - Develop a number of research proposals and defend their design.

3. **Execute a research plan.**  
   - Conduct research according to a given plan.  
   - Conduct educational research.

4. **Develop basic concepts and skills** required for utilizing data processing in the conduct of research.  
   - Work directly with the OCPE computer programmer in developing variable lists, data selection, and data analysis.  
   - Evaluate analysis designs, create variable lists and code computer tasks for data analysis.
CHAPTER II

DESCRIPTION OF THE INTERNSHIP EXPERIENCE

Introduction

Within the Office of Curriculum Planning and Evaluation, there were three main areas of curricular activity: testing and evaluation, program development and planning, and computer operations. The principal activity within these areas included: conducting needs assessments for schools and programs, meeting the evaluation requirements for various programs, providing testing services, maintaining and reporting student achievement information, developing in-service programs, and conducting research studies. Another major activity of the OCPE was the administration of the office itself.

The internship involved two main directions: the development of skills in a wide variety of curricular related areas, and the designing and conducting of a research study. Within this scope, the experience was divided into four main sub-sections. These were: the study and survey of curricular topics, the conduction of computer based research, the study of the administrative functions within the OCPE, and the development of in-service programs.

Curricular Topics

A portion of the internship was designed to produce maximum exposure to a broad range of curricular topics. Every opportunity was taken to gain knowledge and insight into those topics.

The office was actively involved in the vanguard of educational...
change at the state level. As a result, several staff members were involved in developing background information, writing position papers, and developing grant applications that related to the most current activities of the Michigan Department of Education. This provided the intern with valuable exposure to these facets of curricular activity.

Familiarity with the testing programs in GRPS was achieved. Primary attention was focused on the Metropolitan Achievement Tests (MAT), but a number of other experiences with testing programs occurred. These experiences included: contact with the publisher of the Metropolitan Achievement Tests, organization and analysis of test data, and examination of individual test items. The publishers of the MAT were contacted regarding the availability of standard scores on a computer tape that could be merged with the OCPE test files. Analysis of test data for thousands of students provided an overview of academic achievement within GRPS. Consultations were held with a testing specialist at the OCPE regarding his creation of individual test items. These items were to be part of the Objective Reference Testing program being developed by the OCPE.

Participation in a number of meetings in which the various portions of the testing programs in GRPS were discussed yielded valuable insights. Topics of these meetings included: testing procedures, program evaluations, objective reference tests, norm reference tests, competency based assessment, functional level testing, and the Michigan Educational Assessment Program. These experiences in the area of testing and evaluation provided the intern with competencies which would have many applications.
The intern was able to follow the progress of a number of program evaluations as they developed toward the final report form. Especially useful was knowledge gained of various techniques used by the evaluators in gathering information. The reporting format that was used was also a useful model to replicate for other reports.

In addition to the mobility study, the intern participated in the collection of data for reports to the school board. This provided experience in finding, interpreting, graphing, and summarizing data. A variety of different report formats were encountered. Those added to the intern's planning and reporting skills.

Computer Based Research and Evaluation

Part of the internship involved the selection, design, and conduct of a research study. The intern sought to be involved with research that would broaden his understanding and skills in research methodology. He also wanted to study an area that would broaden his knowledge and skills in the testing functions of curriculum work.

After initial investigation into possible problem areas, the impact of mobility on student achievement was chosen as the topic to be studied. The question of student mobility and its effect on academic achievement was a serious issue in the Grand Rapids Public Schools.

A review of the literature, including an ERIC search, revealed conflicting research studies on the issue. There had been no research on the relationship between mobility and achievement in Grand Rapids schools. The question of student mobility had been addressed previously, but no research studies had been conducted and little reliable data was
available on the topic in Grand Rapids Public Schools.

The study centered on the question: "How and to what extent does student mobility affect the academic achievement of students in the Grand Rapids Public Schools?" The objectives of the study were to carefully examine that relationship and make appropriate information and recommendations available to the various departments within the Grand Rapids Public Schools. It was expected that information from the study would impact not only curriculum planning within the OCPE, but would also be used for planning at the individual building level.

The initial work on the study began in December, 1977, with a review of the literature and the drafting of a research proposal. The collection and analysis of data occurred between January and May of 1978. The report on the findings of the study was completed in June and July of 1978. (See Appendix B)

Through this research study, valuable insight was gained in the areas of research and evaluation. In the process of conducting research, a number of issues arose. A serious concern in the conduct of the longitudinal research study was the method for measuring the year to year progress during the four year study period. The Metropolitan Achievement Test record file had individual student raw scores and grade equivalent scores. Neither of these could be validly compared from year to year. The student raw scores were based on forms F and G of the MAT test which were given in alternating years. There were also three levels of the test, grade two used the primary II level, grades three and four used the elementary level, and grades five and six used the intermediate level. Grade equivalent scores could be used to communicate general
growth, but these were not specific enough to use for some types of statistical analysis. In order to compare the mean scores of the various groups, each group's mean raw score had to be converted to standard scores. The majority of test score information that had been utilized at the OCPE was in the form of mean grade equivalent scores. This form of score was usually chosen because it was readily available and most people could easily understand the information.

A major problem with using these scores for statistical analysis was that they did not take the extreme high and low scores into full consideration. That phenomena created a mean that was not an exact mean for the group. The grade equivalent scores were not on an interval scale and this somewhat limited the statistical analysis that could be performed. Use of the raw scores would solve both of these problems because they would consider the exact score of every student in each group, and they would be on a ratio scale. The mean raw scores, however, did not have much meaning for purposes of reporting, even when they were compared with other scores. The raw scores on the Metropolitan Achievement Tests are not comparable across grade levels. There are three different levels of the test and three forms for each level. That made the use of raw scores inappropriate for longitudinal study on mobility. To solve this problem, plans were made to convert the raw scores to standard scores that could be compared across levels and forms of the tests. This was achieved by using conversion tables supplied by the publishers.

As a direct result of the conversion of MAT raw scores to standard scores and the manner in which student achievement scores on the mobility
study were reported, the OCPE began to consider the use of standard scores for statistical testing. Contact with the publishers of the MAT (Harcourt, Brace, and Jovanovich) revealed that standard scores were available as part of the report on test results. Since the publisher scored the tests for Grand Rapids Public Schools, the OCPE could begin obtaining reports of standard scores as well as raw and grade equivalent scores. Plans were made for the computer programmer to design a program which would merge standard score information into the test files.

A second concern was the selection of appropriate statistical tests for the data related to each hypothesis. Much of the research by the OCPE had been for program evaluation purposes. Most of the data had been gathered from questionnaires and was recorded on a nominal scale. Chi-square test for significance was the most common method of analyzing data.

The mobility study involved variables that were both nominal and interval. This allowed for the use of more refined statistical tests on some parts of the analysis.

Another concern was the scope of the population of the study. It was decided that the MAT scores would be used as the measure of academic achievement. In addition, only those students who were tested on the MAT for each of the five years of the study were to be considered. Student mobility was measured through the test records in the following manner. Students who were tested in different schools during the study period were classified as mobile students. Students who either transferred in or transferred out of GRPS during the study
period were not considered. In this manner, academic achievement was clearly defined by the MAT results, and student mobility was defined by the students' school enrollment. This controlled the study population and created two distinct and stable groups. A random sample of the population was taken and the mobility data in the test records of the selected students was checked with the mobility records in the Office of Pupil Services. Those records were found to be in agreement.

Another concern involved additional variables that should be selected for study: predominant ethnic background, sex, and involvement in special programs. Information on those variables was readily available and was placed in the computer files with each students' test scores and mobility rates.

The analysis of the study data was done with the Statistical Package for the Social Sciences (SPSS) program. The intern learned a number of techniques with computer useages: to organize the various computer files, to use key punch cards, to input new data, to determine the number of spaces in each file, to alter data, to compensate for missing data, to eliminate errors which interfere with a computer run, to isolate and merge information on tapes and discs, to manipulate and analyze data with various commands, and to reorganize data through new programs.

The intern also performed a number of functions with the computer program. These included: the creation of a variable list and labels, the selection of task commands, the coding for variable lists, the recoding of data, the selection of commands for statistical analysis and the interpretation of print-out data.
The **SPSS Primer** and the **SPSS Manual** (Klecka, 1975) were used for information on coding cards and for selecting procedures for each type of run. More time was spent with the **SPSS Primer** because it was written for the researcher who had a limited knowledge of computer functioning. The **SPSS Primer** contained most of the information in the **SPSS Manual**, but in less detail. Except for fine points and exceptional cases, the **Primer** proved very adequate.

Two major problems emerged in the analysis of data portion of the study. One problem involved difficulties in isolating the test scores of the mobile students from those of the non-mobile students. The separate test files for the mobile and non-mobile students had to be merged on one tape for the statistical analysis within the SPSS program. In this format, it was impossible to isolate each year of the mobile students' scores when only one year was being studied. The remaining mobile students' scores were automatically included with those of the non-mobile students. This seriously detracted from the usefulness of the information obtained. Based on analysis of the above limited data, each of the null hypotheses related to mobility and achievement would have to be accepted. This would produce an inconclusive study that did not reflect some of the patterns apparent in the descriptive data.

The second problem involved the inaccessibility of standard scores. The OCPE test files did not contain enough column space for adding the standard scores to the master test file. A tape containing all student scores would have to be purchased and a new program would have to be written to accommodate these scores. In July the OCPE decided
to purchase the computer files tape, but it would take several months to obtain this file and write a program that would merge it with the existing MAT scores.

The intern used the SPSS program to generate descriptive data for each study group. From this he created tables of group mean raw scores. These mean raw scores were converted to standard scores using the conversion tables from the *Metropolitan Achievement Test Teacher's Handbook* (Durost, 1971). These mean standard scores were useful for estimating yearly gains and gains over a five year period. These were not, however, useful for the desired level of statistical analysis.

With these two serious data limitations, the intern was unable to complete section II of the study. The report submitted included research methodology, summary data, and testing of the hypotheses related to Title I mobility. Arrangements were made for the intern to complete the remaining analysis when the proper standard scores were obtained.

**Administrative Functions**

In seeking to gain insight into the administrative functioning of the OCPE, the intern studied the handbook for the office during the early weeks of the internship experience. The administrative charts, the position descriptions, and the procedural format helped the intern to understand the pattern of events as they occurred within the office. There were several characteristics of administrative procedures and processes that the intern found significant.

The philosophy of the OCPE was one significant factor. It was based on a systems approach which recognized that the OCPE was one of
many sub-systems, each of which interacted with the others to create the whole. (Castetter, 1971). This philosophy stated that the primary role of the office was to gather curricular information from appropriate sources, analyze and report this information to refine existing educational programs, and to support planning efforts for new programs. The intern appraised the OCPE as an effective planning tool for the central administration. Information that was provided to the school board has been vital to the decision making processes that concerned the creation, continuation, and termination of programs.

Since the OCPE had influence on high level decisions, it was imperative that the OCPE staff proceed carefully when dealing with other offices. When working with personnel in the various schools, the OCPE staff attempted to emphasize its role in curricular resources and de-emphasize its role in program evaluation. This was to avoid the possibility of school personnel viewing the OCPE as a threat to their programs. The OCPE tried to avoid being viewed as a dominating force in individual program planning. To achieve this, it used a human resource model (Castetter, 1971) to promote program development by the staff in individual buildings.

This was exemplified by the Building Based Evaluation Project conducted at Central High School. Several OCPE personnel had contributed weeks of planning time to collecting, organizing, and reporting evaluation information for Central High School. They then supplied this information to the principal and the steering committee who presented it to the staff. During the presentation, the OCPE staff served as resources for the teachers and principals.
Within a system the various sub-systems have a relationship that by its very nature is competitive (Hicks, 1976). As in the procedures followed when working with schools, the OCPE staff was equally sensitive when contacting other offices within the central administration. This was exemplified by the careful process that the director expected the intern to follow in seeking information from the Office of Pupil Services. In that particular instance, the intern had compiled information on student mobility from the OCPE test files. In order to check the accuracy of these figures, he was asked by the OCPE director to compare those figures with the records at the Office of Pupil Services. In seeking this information, it was expected that inter-office procedures be followed. First the director of the Office of Pupil Services was contacted and a meeting with him arranged. At this meeting the director was presented with a copy of the research proposal. The intern then explained what information was needed and how it would be used. The director responded openly and cooperatively in showing the intern where the information was and how to interpret it. On subsequent visits to this office, the intern was careful to explain his role to any staff encountered.

Another significant factor in the administration of the OCPE was the structure of authority. The official organizational chart called for the director of the OCPE to report to the Superintendent of Grand Rapids Public Schools. The assistant director reported to the director; the supervisors of the dissemination, evaluation, research, and data processing teams reported to the assistant director.

The activities of the office were greatly affected by the administrative style of the superintendent. The superintendent had to make a
number of immediate decisions. In pursuing these, he expected data on students, evaluations, or other reports on short notice. The demand for those reports would alter the normal schedule of the OCPE.

The administrative style within the OCPE had an important influence upon the office's operation. The director was very dynamic. When there was extreme pressure to complete tasks, the director would sometimes circumvent the normal levels of communication and directly approach office personnel. During staff meetings, the director usually had the most active role in the discussions and in giving directions. The assistant director often assumed an adversary role, counterbalancing the director's position. The director tended to be task oriented and demanded much of his staff. The assistant director was reflective and tended to utilize the human relations approach (Castetter, 1971). The two men were effective in combining their styles to meet the motivational needs of their staff.

There were many opportunities to observe the process of staff development. Staff meetings were held once a week and were designed to inform the staff about activities of the office and to provide an opportunity for them to have input on decisions within the office. Although it was evident that the director maintained the final authority on all activities, he did delegate authority to the staff members. This delegation provided an opportunity for the staff members to grow personally and professionally. The style with which the director and his assistant conducted the staff meetings also provided growth experiences. In these meetings, the director focused attention on each person present. This format provided the opportunity for each person
to contribute ideas and perspectives to all office activities. It also provided for every staff member to identify with the successes of the office and to feel personal growth as a result of these successes.

Another example of the human resource approach was the way in which the director presented the annual OCPE report to the Grand Rapids School Board. All of the office staff had a role in the development of the annual report. When the report was presented at the school board meeting, the entire staff was encouraged to attend. During the presentation of the report, the director recognized the staff's contributions. In response to the report, the President of the board directly addressed the office staff and commended them for an excellent report.

**In-Service Programs**

The internship provided an opportunity to formulate a philosophy on what should comprise the scope and procedure for in-service training programs. Skills and understandings were developed in the area of in-service training. These skills and understandings were expanded through direct observation of professionals preparing and presenting in-service programs and through the intern's activities during the year.

A portion of the OCPE staff was involved with in-service training. Planning for some of the district wide in-service programs occurred at the OCPE. These activities were in the area of curricular changes and program development.

This work was best exemplified by the Building Based Evaluation Project which was in progress at Central High School. The project involved a two year experimental and demonstration program. The objectives
of the project were to:

1. Establish and support organizational units which were charged with tasks related to systematic planning and evaluation.
2. Develop and field test procedures and instruments which were conducive to building level planning and evaluation.
3. Determine strategies to address impediments which affected continuous planning and evaluation in the buildings.

The building based evaluation model provided an ongoing process that involved four major planning and evaluation activities: a needs assessment, program planning and development, implementation of the pilot program, and program evaluation. The product of those activities would be full scale implementation of programs that had been developed and refined by this planning process. If successful, that model would become the foundation for the ongoing evaluation process of each building, with the process scheduled for a five year cycle.

This approach to evaluation was based on the belief that the primary commitment for improving building planning and evaluation must come from the building staff itself. In order for the staff to gain the skills required for implementing this model, intensive in-service had to be an integral part of the entire process.

All of the evaluation was to be completed within each building with supportive services provided by the OCPE. The evaluation was directed by a task force consisting of a minimum of five teachers and one administrator.

The Building Based Evaluation Project had begun when the intern started work at the OCPE. The task force had completed the needs assessments and was working on the reports and recommendations. The
intern discussed the model at length with the supervisor of planning, attended informational and strategy meetings related to the project at OCPE, and met with the task force at Central High School.

The intern gained valuable conceptual, procedural, and informational insights of the operation of this type of planning. This experience also helped to reinforce the intern's philosophy on in-service training and staff development. He previously believed that a human resource approach to activities within a school system was a very appropriate and productive method. The experience with the Building Based Evaluation model provided a direct link between theory and practice.

Consistent with this human resource approach to staff management, the intern was invited to participate in an in-service program that was sponsored by Grand Rapids Public Schools. The program's purpose was to train administrators in effective problem solving techniques. The consultant for the program was Dr. Richard Foster, former Superintendent of UCLA at Berkeley. His theses was that if one had a definite process for clarifying issues, prioritizing responses, and taking action, many administrative problems could be successfully managed. The intern judged the content of the program to be enlightening and Dr. Foster's style of presentation to be excellent. Most valuable, however, for the intern was the insight gained from observing the processes of in-service program development. As an observer and participant, the intern was aware of the objectives for the program and was able to evaluate the attainment of the objectives as the program progressed.
The intern was asked to serve as a consultant to a Title I workshop planned by the OCPE for late August. The workshop focused on six issues of critical importance to Title I schools: reading, math, home-school relations, attendance, discipline, and student mobility. The participants included administrators, teachers, parents, program specialists, para-professionals, and evaluators from the Michigan Department of Education.

The intern was hired to prepare background information on student mobility in Title I schools and to present this material at the workshop. This gave the intern the opportunity to develop skills in the following areas: directing application of the mobility research, creating an effective problem solving format, developing a highly structured process for group inter-action, preparing and presenting a comprehensive in-service program. The objectives for each of the mobility sessions were to:

1. Assess the needs of each participant as they related to the mobile child.
2. Provide basic background information.
3. Elicit reactions from the group.
4. Maintain a positive, problem solving format.
5. Stimulate each participant to develop a plan that they would implement in their respective settings.

Several specific achievements related to the Title I in-service experiences should be noted.

1. The intern had an opportunity to apply the philosophy that in-service training should focus on the participant and should result in the creation of a product.
2. The intern was able to apply a style of presentation that utilized a balance between a humanistic approach and a structured task orientation.
3. The intern blended theoretical concepts and basic facts into a presentation that was useful to all participants.
4. The intern created a model for explaining possible changes that one might want to select in solving a problem.
5. A simple planning model was created that was useful for this type of in-service.
6. Experiences were gained in working with a variety of people and serving diverse needs.
7. Valuable experiences were gained in meeting, motivating, and directing people who held positions of authority.
8. Confidence was gained in the intern's ability to conduct in-service programs.

The OCPE evaluation of the intern's portion of the workshop was very positive. It provided an excellent culminating activity for the internship.

Summary

The intern's exposure to a range of experiences in the general field of curriculum provided an opportunity to grow conceptually. His general philosophy of curriculum processes was broadened and reinforced.

The research project provided many valuable learning experiences. These included: interaction with a variety of people within Grand Rapids Public Schools, insights into computer capabilities for storing and analyzing data, familiarity with the SPSS program, experience and skill at reading computer program manuals, conceptualization of the steps and processes of writing research proposals and reports, increased skills in the use of descriptive and inferential statistics, and the application of test data for purposes of evaluation.

The administrative functioning of the OCPE provided many opportunities for conceptual development. An appreciation for the systems approach to administrating a large school system was developed. The administrative style within the OCPE helped the intern to develop ideas on appropriate ways to deal with human relations.

The in-service experiences provided the intern with personal and
professional growth. Human relations and presentation skills were
developed, as well as self-confidence in his ability to perform sim­
ilar activities.
CHAPTER III

Introduction

The prospectus that appears in Chapter I was written at the beginning of the internship in the fall of 1977. A full year later, the prospectus appeared to have been highly effective in guiding the intern through his experience. This attested to the thoughtfulness of the original planning, the genuine interest of the OCPE personnel in the intern's growth, and the intern's commitment to development in curricular and leadership areas.

In evaluating each objective individually, it was possible to gain a perspective on the amount of growth and the quality of the experiences that the intern attained. The intern's activities and accomplishments which are related to each of the stated objectives are summarized in the following section.

Evaluation of the Internship Through Objectives

Conceptual Objectives

Objective 1. To understand the philosophy, goals, and procedures of the OCPE.

The intern read and internalized the OCPE handbook. This enabled him to understand the events and processes that occurred within the OCPE. The intern was also able to judge the extent to which the official structure matched the actual structure. At the end of the experience, the intern was able to create an administrative structure which would be appropriate for a central office department.

Objective 2. To understand the flow of authority as it existed in the OCPE.

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The intern gained insight into the reasons certain procedures were followed in the chain of command. The intern was able to understand why certain activities were given precedence over other activities. At the end of the experience, the intern recognized which individuals within the OCPE exercised more authority and influence.

Objective 3. To increase the intern's knowledge of curricular processes.

This objective would have been more complete if it were changed to read: to increase the intern's knowledge and understanding of curricular concepts and processes. The intern took many opportunities to read and discuss various curricular themes. The OCPE provided human and literary resources for the intern. The extended internship allowed for contact with a wide range of information. At the end of the experience, the intern was able to work within the discipline at a professional level.

Objective 4. To acquire a better understanding of the K-8 testing program for Grand Rapids Public Schools.

The intern worked extensively with the Metropolitan Achievement Tests and understood their use within GRPS. He became aware of the other types of testing within the system. These experiences included reviewing the publisher's information on the tests, observing the creation and review of test items, learning the schedule and procedure for the testing program and analyzing test results.

Human Objectives

Objective 1. To learn effective leadership skills appropriate for small group management.

The intern availed himself of every opportunity to attend a wide variety of meetings related to the OCPE. From these experiences, he was able to observe and evaluate the behavior and effectiveness of a number of people in leadership roles. The intern learned to change his style of leadership to match the needs of different small groups.

Objective 2. To develop understanding of inter-personal relations that occur in the OCPE.
The intern worked with each member of the OCPE staff. He was able to perceive differences in work styles, communication skills, and personal needs. Through discussions with the director and assistant director, he learned how they utilized these personnel differences in the management of the entire staff. The intern gained valuable insights into the various strategies that an administrator might use in the management of an office staff.

Objective 3. To achieve the knowledge and skills necessary to conduct staff development.

The intern worked with the people within the OCPE who were responsible for in-service development. He learned their plans and observed their interaction with the various professionals they served. At the conclusion of the internship, the intern was hired by the OCPE to plan and conduct a session at a Title I workshop.

Technical Objectives

Objective 1. To become skillful at identifying and defining research problems.

In the process of selecting an appropriate topic for research, the intern had an opportunity to define a number of situations within the OCPE that could be researched. In developing his own research study, the intern surveyed the resources of the OCPE, conducted an ERIC search, and reviewed the available literature on the research topic. The intern gained insight into the types of limitations that make the research of some topics difficult.

Objective 2. To develop the skill required to design a research proposal.

The intern designed a viable research proposal. This included a definition of the problem, review of the literature, development of hypotheses, design of analysis, identification of limitations, and projection of outcomes. The intern used this proposal to receive approval to conduct a research study within the OCPE.

Objective 3. To execute a research plan.
The intern conducted a research study for the OCPE. He managed the study from its inception to its conclusion. In the process, the intern discovered the amount of interaction required with other people to conduct research. The study was based on a variety of resources, with much of the raw data coming from computer stored test files. It culminated in a report of the findings and recommendations based on these.

Objective 4. To develop basic concepts and skills required for utilizing data processing in the conduct of research.

The intern worked with the computer programmer at the OCPE and utilized the office's computer resources in conducting his research study. He developed variable lists and labels, designed computer runs for analyzing data, and coded the various commands that were required for computer runs. The intern worked with a variety of printout materials and learned how to read and interpret these materials.

A number of objectives emerged as the internship progressed. The following objectives help to make this evaluation of the internship complete.

Conceptual Objectives

Objective 1. To understand how the systems approach can apply to Grand Rapids Public Schools and the OCPE specifically.

The intern identified the various components of GRPS that interact to form that system. He was able to perceive how the purposes, functions and leadership of several of those sub-systems interacted to form the total system. The intern learned to understand those forces and to work effectively within that system.

Objective 2. To understand the importance of office procedure in maintaining an effective operation.

The intern observed a highly efficient office in operation. The manner in which documents were generated, typed, filed, and distributed followed a strict procedure. This allowed the director and his staff to
manage the masses of information that they encountered. Observing this phenomena helped the intern to better understand the importance of organizational procedure within an office.

**Human Objectives**

Objective 1. To learn more effective communication skills.

The intern became acutely aware of the importance of communication at all levels. He encountered a number of situations in which communication was difficult. This occurred at times because of a lack of information or understanding, because of insufficient communication skills of the participants, and because of complex psychological factors. The intern gained valuable experience and skill at working with these situations.

Objective 2. To learn to manage time effectively and to operate through priorities.

The intern observed a variety of people who typically had more work imposed upon them than they could manage at any one time. It was valuable for the intern to become aware of this aspect of administration and to judge how various people resolved this conflict. These experiences aided the intern in establishing some of his priorities.

**Technical Objectives**

Objective 1. To learn to use a computer program for analyzing data.

The intern mastered the basic information required for using a computer program that was specifically designed to utilize the Statistical Package for the Social Sciences Manual. The intern learned to code for a number of statistical tests and learned the advantages and disadvantages of each.

**Summary**

In combining the activities related to the original objectives
with those that evolved during the internship, a well rounded, in-depth experience was attained. The outcomes of the internship justify the time and energy that both the intern and the personnel at the OCPE committed to the experience.
CHAPTER IV

Summary and Conclusions

Providing leadership for educational curriculum maintenance and development can involve many functions. The diversity of the position is shaped by the needs of the school system as well as the characteristics of the person holding the position. Leaders of curriculum are typically in a central office staff position. In order to be effective, curriculum leaders must develop and apply their conceptual, human and technical skills.

The primary purpose of the internship was to prepare the intern for assuming the responsibilities of a leader in the curriculum field. A number of competencies were addressed that would be desirable in meeting the responsibilities of such a position. Activities were planned that would provide development in the following areas: techniques of staff management, command of information relevant to the curriculum field, knowledge of planning methodology, application of human relations skills, knowledge of data processing techniques and competence in the various areas of research and reporting.

The internship experiences were planned to provide exposure and experience in a number of curricular and administrative areas. Investigation of curricular topics, administrative functioning, in-service development, and computer based research were the main areas of activity.

It was the intern's judgement that optimum professional development could take place in a large urban school system. The Office of Curriculum Planning and Evaluation, Grand Rapids Public Schools, proved
an exceptional environment in which to foster the required growth. The OCPE had abundant informational resources, employed numerous educational specialists, was involved in a wide spectrum of curricular activities, applied dynamic approaches toward solving educational problems, and assumed a genuine interest in the intern's educational and professional growth.

In spite of the valuable experiences, there were several areas in which the internship could have been improved. These were primarily in the areas of communication and efficiency. At times, the part-time nature of the internship complicated communication. The intern did most of his work during the mid-to-late afternoon. This was the time when most meetings were scheduled in GRPS. It was sometimes difficult to contact resource people. Conflicts in schedules were difficult to resolve, and some potentially beneficial meetings could not be attended.

Time could have been more efficiently utilized with a longer work day. The conceptual and technical aspects of the internship could have been most appropriately managed with longer work periods. Staff feedback on the writing of reports and the computer work could also have been expedited by a longer work day.

To compensate for the various inefficiencies in the flow of information, and to gain maximum exposure, the intern was working on several different activities at once. This ensured that there would not be a lag in activities, but it also made it difficult to concentrate on one particular product. Working in all of the areas of the OCPE at once also lessened the intern's accountability to any one supervisor. These aspects of the internship were not as realistic as they might have been.
In considering a similar internship, the prospective intern might consider some of the following as possible improvements:

1. Lengthen the work day to a minimum of three hours per day.
2. If a partial day is planned, alternate mornings and afternoons periodically.
3. Focus attention on only one or two main activities and concentrate efforts on these.
4. Be accountable to only one supervisor at a particular time.

In concluding this very involved and rewarding internship, a number of success factors were apparent. These included the intern’s needs assessment and selection of appropriate experiences, the commitment of OCPE staff to the intern’s education, and the synthesizing activities of the research study, the in-service presentation, and the writing of this report.
APPENDIX A

Introduction to the Log

The following log describes the daily activities of the internship. It covers a period from September 6, 1977 to August 22, 1978. Unless otherwise stated, the log describes activities which occurred in the mid-to-late afternoon.
LOG OF ACTIVITIES

Week of September 6-9

Wednesday

A meeting was held between the intern and the director of the Office of Curriculum Planning and Evaluation (OCPE). The main activities of the office and the roles of the primary staff members were discussed. The day was spent meeting the OCPE staff and reading some of the published documents the office had generated.

Thursday and Friday

A copy of the OCPE handbook was received and read. A discussion with the assistant director on the intern's educational background and current teaching position was held.

Week of September 12-16

Monday

The goals for the internship were developed with the director and his assistant. Several areas in which the intern could be helpful to the Office of Curriculum Planning and Evaluation were identified. A suggestion was made to develop a research study, to evaluate an existing program, or to analyze the budget of the office operations. The remaining time was spent reading several reports that the office had submitted to the school board the previous year.

Wednesday through Friday

The remaining part of the week was spent becoming acquainted with the various departments within the office. This included each of the following groups: the program evaluators, the program planners,
the computer programmers, and the testing specialists.

Week of September 19-23

Monday

Contact was made with the assistant director of the OCPE to
discuss the roles of the staff members and the office procedures.
The intern's involvement in curriculum planning and in-service devel­
opment was discussed. It was decided that in addition to the topics
identified last Monday, the internship would focus on the development
of in-service experiences.

Tuesday through Friday

The remaining part of the week was spent with the computer
programmer and staff. The task was to code the information from
ASSETS questionnaires (OCPE, 1977) that were being received from
teachers, students, and parents. This involved reading responses
to questions, putting these responses into the proper format, and
coding them so they could be keypunched into the computer.

Week of September 26-30

Monday and Tuesday

Processing of the ASSETS questionnaires continued.

Wednesday

In a meeting with a program evaluator, the types of evaluations
that the office performed was described. The evaluation process was
explained, and an overview of school documents, student questionnaires,
and parent and teacher interviews were presented. Examples of ques­
tions that were asked of students, teachers, and parents were reviewed.
The intern examined various components of a Title I evaluation and
read a completed evaluation of a Title I school.
Thursday

The work flow of the computer operation department was explained. The intern was particularly interested in the processing of raw data before it was recorded on the computer tape or disc files. The advantages and disadvantages of using the keypunch technique for input data were explained.

Week of October 3-7

Monday

The intern met with the director and assistant director to identify the intern's long range objectives. The possibility of developing short research reports from data generated from the OCPE was discussed.

Tuesday

The intern investigated the possible problem areas in Grand Rapids schools that might be researched. A suggestion was made to research attendance or student academic achievement.

Wednesday

A discussion was held with the computer programmer to establish a program for the intern to develop his computer techniques and skills.

Thursday

The intern identified possible activities within the OCPE office in which he could be of service. A tentative proposal was written which outlined his duties at the OCPE.

Friday

The assistant director met with the intern to propose the possibility of working with test data and technical research.

Week of October 11-14
Tuesday

A tentative proposal on the direction of the internship was submitted to the OCPE director. He mentioned several major possible problem areas from which the project might be chosen. These included a planning project and an attendance study. He also suggested that the intern continue to work within the various specialty areas of the office including: in-service planning, test analysis, and program evaluation.

Wednesday and Thursday

Work began with the testing specialists, helping them organize data that had to be submitted to the school board. The main task was to take the raw data from test reports on the Metropolitan Achievement Tests (MAT) and graph district-wide results. The purpose of the particular report was to describe the improvement of test scores for reading and math from 1973-1977. The range of the percentile and grade equivalent scores were identified. Line and bar graphs that would illustrate them were developed. This was completed for each year of testing, resulting in the creation of ten graphs.

Friday

A computer printout on the ASSETS responses was examined and literature from the publishers on interpreting the MAT results was studied.

Week of October 17-21

Monday

One of the questions raised by the five year study on the Metropolitan Achievement Test results was discussed with the computer programmer. The question raised involved the effect student mobility
had on reading and math scores on the MAT. The computer programmer indicated that some people within the school district believe that the high rate of student mobility was one of the factors influencing the reading and math scores in Grand Rapids Public Schools.

**Tuesday and Wednesday**

Work continued with the MAT results. The graphs were completed and transparencies of them were made. The transparencies were included in a report to the school board.

**Thursday**

Some of the computer printout records of student test scores on the MAT were studied. Upon the request of the intern, the computer programmer described how the data in the student test files could be analyzed with factors like mobility, sex, predominant ethnic background, and other achievement measures.

**Week of October 24-28**

**Tuesday**

The person responsible for coordinating the in-service and dissemination activities for the OCPE met with the intern to discuss his involvement with a future in-service program. It was indicated that most of the in-service plans had been completed for the present school year, but the intern was invited to participate in any part of the program that might be helpful to him. The main in-service activity for the OCPE was a pilot program begun the previous year at Central High School. This plan involved a building based evaluation model with an emphasis upon staff participation.

**Wednesday**

The OCPE resource files were searched for ideas and directions
for the major research study. It had been decided to work on a research project involving student mobility. This would enable the intern to develop his technical and writing skills and would also involve extensive activities with computer processes.

**Thursday**

The computer programmer was approached with the idea of conducting research on student mobility utilizing the MAT records. A number of different computer printouts containing MAT test scores were examined.

**Friday**

A meeting in the OCPE was attended in which building based evaluation was explained. There was extensive discussion as to the proper role of consultants and other specialists who provided assistance to the various programs.

*Week of October 31-November 4*

**Monday**

Building based evaluation was discussed with the dissemination coordinator and the needs assessment for Central High School was reviewed. Arrangements were made to attend a meeting with the steering committee at Central High School in which the needs assessment was being reviewed.

**Tuesday**

A statement was developed which defined the research problem related to student mobility and achievement.

**Wednesday**

The assistant director of the OCPE met with the intern. The research problem statement was presented. He suggested specific guidelines for defining the various types of mobility that would be encountered in the research study.
Thursday

The intern met with the director and presented the research problem statement. The director accepted the topic of student mobility and achievement as highly relevant, but insisted that the research involve a longitudinal study. The director suggested that the intern meet with the research specialist for the office and begin writing the formal research proposal.

Week of November 7-11

Monday and Tuesday

A conference featuring Dr. Richard Foster, former superintendent of UCLA at Berkeley was attended. The central theme was a planning and problem solving technique that was intended to clarify issues, define alternatives, and provide direction for action.

Wednesday

A Curriculum Steering Committee was attended at Central High School. Participants included: the principal, vice-principal, six teachers from the various high school departments, and four OCPE staff members. The committee finalized plans for a presentation to teachers describing the various task groups that the staff might develop during the school year. The committee's concern was to present the information to the teachers in a clear and acceptable manner which would foster individual cooperation and interest.

Thursday

A staff meeting was held at the OCPE. The purpose of the meeting was to provide the staff with an up-date on the progress on the various activities of the office. The research study on student mobility and achievement was outlined.
Week of November 14-18

Monday

The intern met with a researcher from the OCPE to review plans for the conduction of the mobility research. An ERIC search and review of the literature on mobility were discussed. The hypotheses for testing the relationship between student mobility and achievement were explored.

Tuesday

An ERIC search was initiated by the intern at the Educational Resource Center at Western Michigan University. A cursory review of articles that were readily available at the Educational Resource Center was made at the time.

Wednesday

A meeting of the Testing and Evaluation Committee was attended. That committee consisted of teachers and administrators from throughout the district who were interested in testing and evaluation programs. They acted as an advisory group for new programs or tests that were proposed. The purpose of that meeting was to review the committee's objectives and establish directions for the year. Four main issues were identified: a study of the Functional Level Testing Pilot Program, exit competency tests, secondary testing, and new norm referenced tests for the elementary grades.

Thursday

A list of null hypotheses were developed and submitted to the OCPE researcher.

Week of November 21-25

Monday

The computer file for the mobility study was designed and the data for the mobility study was organized. A copy of the (SPSS) Primer was

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obtained, and the intern began studying it.

**Tuesday, Wednesday, and Thursday**

The null hypotheses were refined with the researcher. Computer printouts and the *SPSS Primer* were studied and compared.

**Week of November 28-December 2**

**Monday**

A meeting between the assistant director, the staff researcher, and the intern focused on the proposed hypotheses for the mobility study, results from the ERIC search, and the methods for organizing the study data.

**Tuesday**

The director reviewed the initial research plan for the mobility study and gave his approval. Plans were made to meet with the computer phase of the study.

A lengthy discussion of the comparative leadership styles of personnel in the office also occurred.

**Thursday**

The computer programmer described the details for creating the systems file of merging the MAT information into the SPSS format. Using the *SPSS Primer* and the *SPSS Manual*, the intern began to create the variable lists and labels for the factors that were to be investigated.

**Week of December 5-9**

**Monday**

A staff meeting dealt with the Objective Referenced Test program and the various ways in which the grade level objectives could be integrated into the various curricular materials. Work was continued on the creation of the variable names and labels for the MAT systems file.
Tuesday

The researcher and the intern detailed the format for the formal research proposal. This proposal was to be submitted to the director for final approval on January 15, 1978. It would then be presented at a staff meeting on January 22, 1978.

Thursday

The variable list was completed and submitted to the computer programmer. Based on the SPSS Primer, a written description of the procedure to be followed in the research study was begun.

Week of December 12-16

Monday

The writing of the research proposal was continued and a progress report was presented to the researcher. December 21, 1978 was planned to discuss the first draft.

Tuesday

A meeting was held in which the building based evaluation model was described. This meeting provided an overview of the model and discussed its implementation in GRPS schools. The methods for accomplishing specific tasks were emphasized.

Wednesday

A follow-up meeting of the Testing and Evaluation Committee was attended. The purpose of the meeting was to allow each staff member to respond to key issues regarding testing within Grand Rapids Public Schools.

Thursday

The systems file list was received and a coding form was completed by the intern as preparation for creating the keypunch cards for the test
file. Work was continued on the first draft of the research proposal.

Week of December 19-23

Monday

Work continued on the file list and research proposal.

Tuesday

The systems file list was completed and presented to the computer programmer. The first draft of the research proposal was completed.

Wednesday

The researcher and the intern reviewed the research proposal. Several possible improvements were identified in the limitations and procedures sections of the proposal. The study sample and reporting format were refined.

Week of January 2-6

Tuesday

A series of charts illustrating the sub-groups within the study were created.

Wednesday

The computer programmer and the intern discussed the steps to be taken in the computer phase of the research. The systems file was created and a program was written which merged the student test data into that file. Other variables that were to be considered in the research were discussed.

Thursday

Methods of organizing and illustrating the research data were explored, and work was begun on categorizing the data.
Week of January 9-13

Monday, Tuesday, and Wednesday

A computer print-out of the student numbers for all the mobile students in the sample was received. The print-out included a record of the schools attended by the students during the five year study period. The students were categorized according to the number of changes in their school sites.

Thursday

The researcher and the intern reviewed the research proposal. The proper approach for verifying the mobility data was identified. An in-house review was set for Tuesday, January 24, 1978.

Week of January 16-20

Monday

A section on possible implications of the study was created and added to the proposal.

Tuesday

The intern and the researcher explored possible statistical tests that could be used in testing for significance. It was agreed that a .05 level of significance was appropriate.

Wednesday

A Title I evaluator provided information on mobility patterns of the students in Title I schools. He explained how achievement was evaluated in Title I schools. He agreed to include one item concerning Title I student mobility on a questionnaire he was developing.

Thursday

The research proposal was submitted to the director. Possible statistical analysis for the study was discussed with the computer
programmer.

Week of January 23–27

Monday

The *SPSS Manual* was consulted to provide a more accurate understanding of the manner in which information was retrieved and processed by program.

Tuesday

An in-house review of the research proposal was held. The director requested some additions to the study. He indicated that the final results should produce two types of information: a description of the types and nature of mobility in GRPS and the direction that GRPS could take in better serving the mobile students. The director suggested that hypotheses be developed to speak to those questions. He suggested that contact be initiated with the director of the Office of Pupil Services to arrange for the use of their data on student mobility. Development of a method to map the mobility of students within GRPS was requested.

Wednesday

Two additional hypotheses that would provide the research study with the broadness that the director desired were written and submitted to the researcher. An appointment was made to meet with the Pupil Services director.

Thursday

The computer programmer described the type of student mobility information that was available through the computer resources. The limitations and inaccuracies that existed with both the OCPE and
Pupil Services data were explained. The problems focused on inaccuracies which had occurred during a change in the student numbering system in 1975-76.

Week of January 30-February 3

Monday

A staff meeting was held to discuss the various and diverse records maintained on each student in the district. The duplicity of the records caused inefficiencies in record-keeping which resulted in a reduction of services to the students. A request was made to use the GRPS computer to record and store the necessary information. The availability, accessibility, and limitations of such a system were explained. Plans were developed to investigate possible solutions to the issue.

Tuesday

The initial tabulation of the data on mobile students was obtained. This material provided the sum of the raw scores, the average raw scores, the standard deviation, and the variance for each of the sub-tests. These scores were sorted according to the school attended for each of the five years under consideration. This information was organized and discernable patterns were noted for investigation.

Wednesday

The next phase of the computer run was designed to compare the reading and math scores of those students who were inter-system mobile.

Thursday

A meeting with the researcher, the director of Pupil Services, and the intern was held to define the needs for student mobility information.
The director responded favorably to the mobility study and made the records and data of his office available for use. Microfiche and computer print-outs were located and made accessible. The director noted the changes in curricular emphasis that he had perceived during the study years. His concern focused on the current emphasis upon vocational education and career education at the expense of other programs. A concern was voiced that too many educational decisions centered on the needs of technology rather than the needs of students.

Week of February 6-10

Monday

A discussion with the assistant director focused on plans for the 1978-79 in-service programs. It was indicated that the direction of the programs would be determined by a federal grant proposal the OCPE was developing. A comprehensive program was anticipated if the grant were approved.

A chart containing the mean raw reading and math scores for mobile students for each year between 1973 and 1977 was developed.

Tuesday

The print-out on inter-system mobile students was received. Work continued on the chart for the mean raw scores for each group. A computer run was designed to provide identical information for the non-mobile students within the sample. A new computer tape of non-mobile students was created for this purpose.

Wednesday

The grant application being prepared for the Michigan Department of Education was discussed at a review meeting.
**Thursday**

During a meeting with the assistant director, some validity problems which arose in trying to compare the groups were identified. More control was required for the inter-school mobile group. Ways to achieve this control were suggested, and the group was redefined to achieve this.

**Week of February 13-17**

**Monday**

At a meeting on building based evaluation, a member of the dissemination team presented the second draft of the evaluation report. The report was clarified and completed.

**Tuesday**

Additional variables for the mobility study were created and plans were made to store the information on tapes. The advantages of a mini-file for each of the mobility groups were discussed. It was indicated that these mini-files could be merged to allow for inter-group comparisons.

A letter was received from the Supervisor of Music for GRPS which verified the interest that the mobility study was generating within the school system.

**Wednesday**

A program evaluator was consulted on the procedure for collecting data for Title I reports. It was explained how questionnaires for parents, students, and school officials were created. The sampling process and the selection of interviewers were described. Additional variables for the mobility study were explored with the evaluator. Plans were made to include several items on student mobility on the
next questionnaire. It was decided that it would be valuable to poll parents and school officials on the perceived impact of mobility on Title I students.

**Thursday**

The print-out on non-mobile students was received. The scores were tabulated and entered on the charts.

**Week of February 20–24**

**Monday**

Standard deviations and variances for each group were added to the charts.

**Tuesday**

The computer files on the performance level assessment objectives created by a testing specialist were studied. The objectives could be combined to match the curriculum in any school or grade level and could provide schools with appropriate test items for the curriculum. The manners in which errors were identified in computer runs and the manners in which corrections could be made were explained.

**Wednesday**

A workshop sponsored by the Michigan Department of Education was discussed. The workshop focused on performance objectives for life competency education.

The techniques for effective involvement of teaching staff in curriculum development and planning were discussed.

The OCPE was attempting to develop alternatives for improving student attendance. The intern explained his experience with student contracts and offered several resources for using these.
Thursday

Following the discussion of student contracts, a meeting was arranged between the intern and an OCPE staff member who was creating guidelines for teacher developed contracts for students. The intern's background and resources were utilized.

Friday

Methods to check the accuracy of the student mobility records were identified. Plans were made to compare the OCPE records with those of the Office of Pupil Services. Mobile students' identification numbers and the schools in which tests were administered were cross-checked.

Week of February 27–March 3

Monday

In a meeting between the assistant director and the OCPE test specialist, the development of objective reference test items was discussed. Reactions from the district schools were received, and methods of organizing and storing the objectives from the local schools were explained. A list of objectives for a study unit could be submitted from a local school, and the OCPE could then return a list of objective reference test items. A concern was expressed by the intern that test items could be either too general to test mastery of material or could be too specific to use in an individual teacher's curriculum. It was explained that all test items were based on approved objectives for given grade levels and would match the grade curriculum. Many of the schools were involved with performance level assessment, and the objective reference test items
were to be especially useful in those programs. More generalized test items were to be designed to evaluate learning at an internal level.

**Tuesday**

In a meeting with the staff, the intern noted that both humanistic and behavioristic approaches to education might be helpful in the development of alternatives to improved student attendance. It was suggested that Central High School could develop a philosophy on school attendance that would allow for behavioristic and humanistic applications.

The progress of various current studies were also reviewed. The director planned to coordinate efforts to complete these reports.

Key concerns of the school board on academic achievement scores were the following. Why do test scores drop off in later elementary grades? Why are inner-city scores much lower than those in the rest of the school district? Each of the staff was asked to determine possible explanations for the current patterns. The intern was directed to coordinate his efforts with the Title I report on achievement.

Because of a major controversy with the coverage by the news media on Title I schools, the director presented a position paper to the staff. The paper outlined the procedure to be followed before any data or reports from the office could be released to the public. No data was to be made public without the approval of the director.

The intern was assigned to a committee to identify the various manners in which office reports could be organized into master reports on student achievement.
Wednesday

Additional data on the intra-mobile group and the sampling technique for verifying the mobility information were addressed. A meeting on the attendance study at OCPE focused on the information to be included in the study and the most meaningful manner of reporting the information. The intern suggested the district report attendance by month and semester rather than once a year. The suggestion was discussed and referred to committee.

Thursday

The committee for developing a master plan for reporting student achievement met. Possible sources of data and procedure of reporting the data were presented.

Week of March 5–9

Monday

A meeting on the performance level assessment program was attended. The dissemination team developed a packet of instructions for using the program. An outline of the structure of the program and illustrations on the application of the program were included.

Tuesday

A meeting was held to identify the possible variables which influence achievement within inner-city schools. An extensive list was generated. An extensive series of computer print-outs that traced the enrollment for each mobile student in the sample was received. These were arranged in a crosstab chart.

Wednesday, Thursday and Friday

Sorting and reorganizing of the variables list began. Work
continued on the crosstab charts and other computer print-outs.

Week of March 13-17

Monday

A meeting was attended which focused on the placement level assessment scores and the manner in which they could be merged into the entire test scheme for GRPS. It appeared that the Placement Level Assessment plan would integrate with the objective reference test program.

Mapping the flow of mobile students through the various schools was begun.

Tuesday

A list of the total number of students in the sample who attended each GRPS elementary school during the study years was created.

Wednesday

A list of the test scores for mobile and non-mobile students was requested by the intern. These were to be divided into the sub-groups of predominant ethnic background (PEB) and sex. The Title I variable was discussed.

Thursday

A meeting was held to discuss the possibility of designing a master computer file to contain the demographic, test, and other recorded data which GRPS maintained on each student.

Week of March 20-24

Monday

A meeting was held to discuss the competency based education focus of the Michigan Department of Education in 1978-1979.
Tuesday to Friday

Completion of the charts of raw scores for PEB and sex was accomplished.

Week of March 27-31

Monday

The intern met with the assistant director to study the charted test scores. It was suggested that the hypotheses be limited to those students that could be clearly addressed by the computer data.

Tuesday

A suggestion by the researcher was made to convert the mean raw scores to standard scores in order to compare gains from year to year. The publisher of the MAT was contacted to determine if this was a valid approach for the comparison of scores between different levels of the test. A positive response was received, and the conversion work began.

Wednesday through Friday

Work continued on the conversion of the raw scores to standard scores.

Week of April 10-14

Monday

A discussion of the progress of the mobility study identified the additional data needed to test the hypotheses. It was decided to measure the difference in student mobility and achievement in Title I and non-Title I schools. A plan was created to compare the scores of students and their rate of mobility.

Another concern was the type of statistical test to prove or
disprove the hypotheses. An analysis of variance (ANOVA) was to be used whenever possible. The researcher decided a chi-square test was acceptable for testing most of the hypotheses.

Tuesday

The computer run on the descriptive data was planned. Information on the procedure for the use of the chi-square and ANOVA tests was researched in the SPSS Manual.

Wednesday and Thursday

Study continued in the SPSS Manual. The standard score charts were completed.

Week of April 17-21

Monday

A meeting with the director and assistant director was held to discuss the progress of the mobility study. The plans for statistically testing the data were explained. Assurance was made to the director that the intern was sensitive to the importance of reporting the study in a careful manner. The intern explained the reason for using standard scores rather than grade equivalent scores. The director requested that the study describe the impact of mobility for each year of the study.

Tuesday

Additional data needs were identified. Attention focused on the use of grade equivalent scores in reporting student progress.

Wednesday and Thursday

Research continued on the test related materials; the final charting of the scores was accomplished.
Week of April 24-28

Monday and Tuesday

The descriptive data on the Title I and non-Title I schools was received. Work began on the organization and charting of this information.

Wednesday

Descriptive data on students who had moved each year and their rate of mobility was received.

Thursday

The information from the descriptive data was studied. Plans were made to perform some statistical tests on the data.

Week of May 1-5

Monday

A program for the computer was discussed which would test the standard scores for significant differences. The publisher was again contacted for information on the proper procedure to follow.

Tuesday

It was reported that the publisher affirmed the use of standard scores to describe gains in scores, but that they could not be used for the ANOVA test. In order to use standard scores for an ANOVA test, each student record must have individual standard scores. These scores could be totaled for each year, and a group mean score derived. The different group's means could be compared to the mean for all groups and the ANOVA tests could be run. Permission was granted to purchase a master conversion tape to allow the comparison to be made.
Wednesday

It was discovered that the OCPE had the standard scores for all students on the computer tapes with raw scores, grade equivalent and percentile scores. The OCPE had never sought to use standard scores for research, so had not been aware that the information was readily available for their use.

Thursday

A computer program was planned to obtain the standard scores from the publisher's tapes and include them on the tapes of different mobility groups. It was decided to run chi-square tests using grade equivalent scores.

Week of May 8-12

Monday

All of the data that had been collected and charted was examined for patterns which would require further investigation. The statistical tests to best measure significant differences in scores were explored. The Pearson product correlation was eliminated as it was determined that it could not be validly conducted. A chi-square and ANOVA tests were chosen as the most valid measure. The format of the final report was determined, and work on the report began.

Tuesday

The final data on sex, PEB, and Title I groups was received.

Wednesday

The charting of the scores was completed. The following data was now organized and charted for each sub-group: mean raw scores, mean standard scores, standard score gains, standard deviation, and
variance. This completed the descriptive research on the study.

Thursday

The descriptive statistics were presented to the director. Patterns which were meaningful and statistical tests on these patterns were discussed. Approval of the chi-square and ANOVA tests was given. Copies of the research reports were studied.

Week of May 15-19

Monday

The final report format was examined. The intern's experiences were discussed with the director.

Tuesday

The chi-square results were received. The researcher described the inferences which could be made from the print-outs. Organization of the chi-square data was begun.

Wednesday and Thursday

Work continued on the final report and the charting of the chi-square data.

Week of May 22-26

Monday

Through a survey of the chi-square data, one of the null hypotheses was rejected. This concerned the pattern of mobility for Title I and non-Title I students. The status of the remaining hypotheses was less clear. Some levels of significance for some years allowed for rejection of these null hypotheses; however, others did not. The results were not clear enough to form any definite conclusions. It was decided to conduct the chi-square tests again and
create seven intervals for gain or loss in grade equivalent scores.

**Tuesday**

Plans were made to run the chi-square tests during the following two weeks.

A statement for rejection of the null hypotheses was prepared.

**Wednesday**

Work continued on the coding of the variables for the second chi-square test.

A staff meeting focused on the reporting format of grade equivalent data. A concern of the OCPE was that inaccuracies were inherent in the use of grade equivalent scores. A need to report changes in the pattern of distribution of the scores around the mean grade equivalent for the elementary grades during recent years. There had been a significant upward shift in the students whose scores fell within the lower end of the distribution.

**Thursday**

Coding for the second chi-square test was completed. Work on the "findings" section of the final report was begun.

Week of May 29-June 3

**Tuesday**

The introduction of the final report was completed.

**Wednesday**

The content of the final report was approved. The director was briefed on the status of the report and plans were made to submit the report in late June.
Weeks of June 26-August 22

The formal internship experience was concluded. During the period of June, July, and August, the intern achieved the following:

1. The research and writing of the final report were completed.

2. Numerous reports and preparations for the coming school year were examined.

3. The intern was hired as a consultant for a Title I workshop. The intern directly applied his understandings and insights on mobility in GRPS at the Title I workshop.
APPENDIX B

This Appendix contains the research report submitted to the Office of Curriculum Planning and Evaluation.
A STUDY OF THE IMPACT OF MOBILITY ON STUDENT ACADEMIC ACHIEVEMENT IN THE GRAND RAPIDS PUBLIC SCHOOLS

Prepared by:

Joe Miller
Administrative Intern
Office of Curriculum Planning and Evaluation
SECTION I
A STUDY OF THE IMPACT OF MOBILITY ON STUDENT ACADEMIC ACHIEVEMENT IN THE GRAND RAPIDS PUBLIC SCHOOLS

INTRODUCTION

A review of educational research reveals a high interest in student mobility and the impact it might have on student achievement. There have been a variety of research studies that have examined the influence of mobility on academic achievement. A survey of these studies reveals mixed and conflicting reports as to the significance of this factor.

A number of research investigations found a significant relationship between student mobility and academic achievement. In comparing high and low mobility students from both high income and low income neighborhoods, France and Murton (1966) found that mobility did have an effect upon students' educational experiences and, also, suggested that mobility has a less profound effect on students from high income families. A study by Abramson (1974) found statistically significant differences between all mean and percentage scores when comparing mobile and non-mobile students. Husbands (1968) found inter-school mobility to be one of the important variables influencing I.Q. and reading achievement scores for a group of students tested over a four year period. In comparing non-mobile disadvantaged students' reading scores with the scores for disadvantaged students experiencing varying degrees of mobility between the third and sixth grades, Justman (1965), found that the non-mobile student experienced improvement in test scores, and the
students who attended more than one school showed no improvement in these scores. He found that students who attended four or more schools during this period experienced marked declines in their performance.

Conversely, several research investigations reported little or no significant difference in the academic performance of mobile and non-mobile students. A Research and Development Report (1972) for the Atlanta Public Schools stated that in most instances, mobility had no significant effect upon reading achievement of students in their schools. Stuhr and Wright (1968), concluded that their research did "not support the thesis that mobility, in and of itself, significantly affects the performance of elementary students." Black and Borger (1975), found no difference between the reading achievement of mobile and non-mobile students.

The effect of mobility on student achievement seems to vary with the school setting and characteristics of the learners. There is enough conflict in the reported research to encourage school districts to examine this relationship within their own system.

**PROBLEM**

The question arises "How and to what extent does student mobility impact the academic achievement of students in the Grand Rapids Public Schools?"

This research study was designed to examine the relationship between student mobility and academic achievement on the Metropolitan Achievement Test scores in the GRPS. The objectives of this study was to first examine this relationship, and then to make suggestions and recommendations...
to the various departments within GRPS. These recommendations should lead to improved services to the students, and improved academic achievement of the students in the Grand Rapids Public Schools.

**HYPOTHESES**

This research has examined the relationship between student mobility and their performance on the Metropolitan Achievement Test. In order to evaluate this relationship, statistical measurement were developed to either accept or reject the following null hypotheses:

- \( H_0 \): There is no significant difference in the rate of student mobility between Title I and Non-Title I schools.
- \( H_0 \): There is no significant difference between the types of schools (Title I and Non-Title I) that intra-mobile students attend.
- \( H_0 \): There is no significant difference between the MAT test scores of students with different rates of mobility.
- \( H_0 \): There is no significant difference between the MAT test scores of mobile and non-mobile students.
- \( H_0 \): There is no significant difference between the MAT test scores of mobile and non-mobile students when males and females are considered separately.
- \( H_0 \): There is no significant difference between the MAT test scores of mobile and non-mobile students from the following ethnic backgrounds: Native American, Black, Hispanic, White, and Asian.
- \( H_0 \): There is no significant difference between the MAT test scores of mobile and non-mobile students in Title I and Non-Title I schools.

**SAMPLE DESIGN**

To test for a relationship between student mobility and the MAT test scores, a longitudinal study was conducted. The study covered the
test period from 1973 to 1977. These years were chosen because of the five year report recently completed on student achievement by the Office of Curriculum Planning and Evaluation. The mobility question was one of the issues raised by that study. The test data and the extent of student mobility during the study period were readily available.

This research followed the progress of a "class" or grade level of 1,106 GRPS students through five years of testing. These students remained within the school system in the second through the sixth grades during the years 1973 through 1977 respectively, and represent every elementary school within the district. Since the entire set of student test scores was included in the measurement for each year, no sampling was necessary.

To test the hypotheses of this study, the students were grouped by the following variables: sex, predominant ethnic background, and attendance in Title I and Non-Title I schools. All of these groups closely represent a cross-section of the K-6 population for GRPS.

**PROCEDURE**

The resources of the Office of Curriculum Planning and Evaluation were primarily used in conducting this study. (The test files at The Office of Curriculum Planning and Evaluation were the source of data.) All statistical analyses was done by utilizing the GRPS computer system.

The first task was to isolate individual student test scores on the MAT for the grades and the years involved. These included both raw and grade equivalent scores. This was done first with all students who took the MAT in 1973 as second grade students. The 1974 scores for this same
class of students (now third grade students) were compiled. The same was then done with the 1975, 1976, and 1977 test scores for this same class of 4th, 5th, and 6th grade students respectively. The student test scores for each year were then placed in the nominal groupings of non-mobile, intra-system mobile, and inter-system mobile. Those students who were non-mobile and those who were intra-system mobile, but remained in GRPS for the 5 years were selected for study.

**ANALYSIS OF DATA**

The test data was assigned to the appropriate study groups, and a computer program designed to analyze statistical data, the Statistical Package for the Social Sciences (SPSS), was utilized to compile and analyze test scores.

First, the mean raw scores for each group were calculated. These scores were then converted to standard scores. From these, the 4 year gain in standard scores was derived. This data appears in Section IV. These mean standard scores are estimates and could not be used for statistical analysis. It was possible to run Chi-square tests on the grade equivalent scores. Those were the only scores that could be validly compared from year to year. In comparing student grade equivalent scores for each year, grade equivalent gains were placed into categories of regression, no gain, and gain. The .05 level of significance was used to either accept or reject the null hypotheses.

**LIMITATIONS**

This study was limited to the Grand Rapids Public Schools, and was
limited to those students who participated in the MAT testing program from 1973 through 1977. Student achievement was measured only by the MAT test scores. The study did not consider the I.Q. or socio-economic status of students. Residential mobility was not measured, rather student mobility was defined as any change from one school to another during the study years. This mobility was determined by the test records and checked for reliability with the mobility records in the Office of Pupil Services.
SECTION II
FINDINGS OF THE STUDY

PURPOSE OF THE STUDY

The question of how much impact mobility has on student academic achievement is often raised in educational planning. There have been a number of conflicting research studies on this issue. There has been no research done on this situation in Grand Rapids Public Schools. The main purpose of this study was to examine the relationship between student mobility and academic achievement in G.R.P.S. The objectives of the study were to carefully examine this relationship, and make appropriate suggestions and recommendations to the various departments within GRPS.

DESIGN OF THE STUDY

A longitudinal study was done of a group of students who were enrolled in GRPS in 1972 as second graders and who remained within the school system until the end of the sixth grade in 1977. These students were divided into two main groups; those that remained in the same school for five years, and those that changed schools one or more times. The variables of sex, predominant ethnic background and Title I schools were considered. Academic achievement was measured by the students' scores in reading and math.

POPULATION OF STUDY

This research study investigated the MAT test scores of 1106 GRPS
students. These students were second graders in the 1972-73 school year and were in grades 2-6 in the subsequent four years. 699 of these students had a stable school experience and 407 of these students changed schools at least once during this period. During the five year period, 191 mobile and 285 non-mobile students attended Title I schools and 214 mobile and 414 non-mobile students were enrolled in non-Title I schools. Table I provides further demographic information on the study population.

**TESTING OF THE HYPOTHESES**

$H_0$: There is no significant difference in the rate of student mobility between Title I and non-Title I schools.

In investigating this hypothesis, the following Chi-square test was done comparing student mobility to type of school attended for the 1976-77 school year.

**Table I**

<table>
<thead>
<tr>
<th>Type of Student</th>
<th>Type of School</th>
<th>Non-Title I</th>
<th>Title I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Mobile</td>
<td></td>
<td>414</td>
<td>285</td>
</tr>
<tr>
<td>n=699</td>
<td></td>
<td>396</td>
<td>300</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
<td>214</td>
<td>191</td>
</tr>
<tr>
<td>n=405</td>
<td></td>
<td>232</td>
<td>476</td>
</tr>
</tbody>
</table>

$\chi^2 = .9945652$

df = 1

p = .30

A significant relationship at the .05 level does not exist between the rate of mobility between Title I and Non-Title I schools for the 1973-77
school years. Based on these tests, the null hypothesis can be accepted.

\( H_0: \) There is no significant difference between the types of schools (Title I and Non-Title I) that intra-mobile students attend.

In investigating this hypothesis, the following Chi-square test was done for the 1976-77 school year.

Table II
Type of Previous School Attended by Type of Present School Attended

<table>
<thead>
<tr>
<th>Type of Student</th>
<th>Type of School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Title I</td>
</tr>
<tr>
<td>Mobile Non-Title I Students</td>
<td>167</td>
</tr>
<tr>
<td>n=177</td>
<td>(92)</td>
</tr>
<tr>
<td>Mobile Title I Students</td>
<td>47</td>
</tr>
<tr>
<td>n=230</td>
<td>(122)</td>
</tr>
</tbody>
</table>

\( X^2 = 216.22267 \)
\( df = 1 \)
\( p = (.0001,1) \)

A significant relationship at the .05 level does exist between the type of schools that intra-mobile students attended when the 1975-76 and 1976-77 school years are considered. This significant relationship also exists for the other years of the study. Based on these tests, the null hypothesis can be rejected.

The Chi-square tests performed on the remaining null hypotheses were inconclusive. There were erratic cases in which the .05 level of significance was approached or attained, but these could not be validly generalized as the rule. Based on these tests of significance, the remaining null hypotheses should be accepted.
SECTION III
RECOMMENDATIONS AND CONCLUSION

INTRODUCTION

The data analysis portion of this report is inconclusive on the main question of the study. The extent and impact of student mobility on academic achievement in Grand Rapids Public Schools is not certain. With this severe limitation, relatively little direction can be obtained directly from the study at this point. A number of peripheral issues can, however, be addressed.

USE OF STANDARD SCORES

It is recommended that the OCPE obtain the standard score information that is available for the MAT and any other tests that they are using. This would allow the OCPE to utilize these scores in place of the less accurate grade equivalent scores now being used.

ANALYSIS OF DATA

It is recommended that the OCPE utilize t-tests and ANOVA more commonly in their evaluation and research studies. These tests are part of the SPSS computer program and would add strength and diversity to their reporting functions.

STUDENT DEMOGRAPHIC RECORDS

It is recommended that the Office of Pupil Services continue its efforts to record and measure student mobility. It is suggested that
some standardized procedure for reporting the mobility of students be adopted by GRPS.

**TITLE I SCHOOLS**

It is recommended that efforts be made to standardize the curriculum of Title I schools. There is a strong probability that when Title I students change schools, they will enter other Title I schools. Since Title I schools represent a sub-system within GRPS, special efforts can readily be made to better serve mobile students.

**FURTHER INVESTIGATIONS**

It is recommended that the research begun with this study be continued. The relationship between student mobility and academic achievement remains unresolved. There is a strong conviction, especially among Title I educators, that student mobility is a factor in shaping a student's success in school. When the data limitations are resolved, the research on student mobility should be continued.

**CONCLUSION**

The impact of student mobility in GRPS is an unresolved issue. Further study utilizing standard scores is definitely in order. When the appropriate scores are obtained and integrated into the master test file, this research should be continued.
SECTION IV

Section IV contains the tables of summary data related to the research study. Individual standard scores for each student in the population were not available in the OCPE test file. The standard scores in Tables 2-6 were derived by using the MAT standard score tables to convert group mean raw scores to group mean standard scores. These converted scores should not be used for statistical analysis.
Table I

Breakdown of Number and Percentage of Various Groups of Students Within the Population

<table>
<thead>
<tr>
<th></th>
<th>Mobile</th>
<th>Non-Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female n=421</td>
<td>195</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Male n=507</td>
<td>188</td>
<td>319</td>
</tr>
<tr>
<td></td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>Native American n=21</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>Asian n=3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>33 1/3%</td>
<td>66 2/3%</td>
</tr>
<tr>
<td>Black n=262</td>
<td>133</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Hispanic n=32</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>White n=717</td>
<td>226</td>
<td>419</td>
</tr>
<tr>
<td></td>
<td>32%</td>
<td>68%</td>
</tr>
</tbody>
</table>
Table II
Mean MAT Total Reading and Total Math Raw Scores and Standard Scores for Non-Mobile Students and Students Experiencing Different Rates of Mobility

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Form F</td>
<td>Form F</td>
<td>Form G</td>
<td>Form F</td>
<td>Form F</td>
<td></td>
</tr>
<tr>
<td>Non-Mobile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=699</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD.</td>
<td>57.97 (52)</td>
<td>54.06 (61)</td>
<td>64.58 (67)</td>
<td>53.05 (78)</td>
<td>60.08 (82)</td>
<td>+30</td>
</tr>
<tr>
<td>MA.</td>
<td>67.80 (57)</td>
<td>64.73 (71)</td>
<td>77.57 (78)</td>
<td>57.09 (86)</td>
<td>58.52 (87)</td>
<td>+30</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=407</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD.</td>
<td>54.28 (51)</td>
<td>51.27 (60)</td>
<td>59.85 (64)</td>
<td>48.99 (76)</td>
<td>55.65 (80)</td>
<td>+29</td>
</tr>
<tr>
<td>MA.</td>
<td>65.19 (56)</td>
<td>61.41 (70)</td>
<td>73.38 (75)</td>
<td>54.22 (85)</td>
<td>64.60 (89)</td>
<td>+33</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moved Once</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=303</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD.</td>
<td>55.13 (52)</td>
<td>52.43 (61)</td>
<td>61.17 (65)</td>
<td>50.07 (76)</td>
<td>56.73 (80)</td>
<td>+28</td>
</tr>
<tr>
<td>MA.</td>
<td>66.04 (55)</td>
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( ) = Standard Score
Table III

Mean MAT Total Reading and Total Math Raw Scores and Standard Scores for Non-Mobile Students and for Paired Years of Mobility and Non-Mobility Within Mobile Group

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<th>Year</th>
<th>Form</th>
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<td>MA.</td>
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<td>64.73 (71)</td>
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<td>77.57 (78)</td>
<td>53.05 (78)</td>
<td>57.09 (86)</td>
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<td>54.06 (61) +9</td>
<td>64.73 (71) +14</td>
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<td>64.58 (67) +6</td>
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<td>53.05 (78) +11</td>
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<td>1976</td>
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<td>53.05 (78) +11</td>
<td>60.08 (82) +4</td>
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Non-Mobile
n=699

Moved This Year
n=52

RD. 46.65 (50) 45.15 (58) +8
MA. 56.75 (54) 55.23 (67) +13

Did Not Move This Year
n=251

RD. 56.90 (52) 53.94 (61) +9
MA. 67.96 (57) 65.42 (71) +14

Moved This Year
n=67

RD. 51.52 (61) 60.70 (65) +4
MA. 60.96 (70) 75.39 (76) +5

Did Not Move This Year
n=236

RD. 50.69 (61) 61.31 (65) +4
MA. 64.45 (71) 75.39 (76) +5
Table III (Cont.)

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<tr>
<th>Year</th>
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<th>Form F</th>
<th>Form G</th>
<th>Form F</th>
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<td>1977</td>
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</table>

Moved This Year
n=55

RD.  | 58.45 (63) | 43.05 (72) +9 |
MA.  | 11.93 (74) | 51.65 (84) +10 |

Did Not Move This Year
n=248

RD.  | 61.77 (65) | 51.62 (77) +12 |
MA.  | 79.14 (76) | 56.60 (86) +10 |

Moved This Year
n=129

RD.  | 55.68 (80) | 61.60 (83) +3 |
MA.  | 62.05 (88) | 71.47 (92) +4 |

Did Not Move This Year
n=174

RD.  | 45.90 (74) | 53.12 (78) +4 |
MA.  | 50.99 (84) | 61.62 (88) +4 |

( ) = Stan. Scores
+ = Gain in Stan. Score Each Year
Table IV

Mean MAT Total Reading and Total Math Raw Scores and Standard Scores for Non-Mobile and Mobile Students By Sex

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<td>Form F</td>
<td>Form G</td>
<td>Form F</td>
<td>Form G</td>
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<td>50.73 (77)</td>
<td>56.69 (80)</td>
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<td>54.28 (85)</td>
<td>66.15 (90)</td>
<td>+35</td>
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<td>Female n=226</td>
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<td>55.66 (62)</td>
<td>65.19 (67)</td>
<td>53.01 (78)</td>
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( ) = Stan. Score
### Table V

Mean M.A.T. Total Reading and Total Math Raw Scores and Standard Scores for Non-Mobile and Mobile Students by Predominant Ethnic Background

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<th>1977 Form F</th>
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<th>4 Year Gain In Stan. Score</th>
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<td>61.67 (55)</td>
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<td>50.17 (83)</td>
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( ) = Standard Score
Table VI
Mean M.A.T. Total Reading and Total Math Raw Scores
and Standard Scores for Non-Mobile and Mobile
Students in Title I and Non-Title I Schools

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<th>1974 Form F</th>
<th>1975 Form G</th>
<th>1976 Form F</th>
<th>1977 Form G</th>
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<td>56.75 (63)</td>
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<td>Mobile</td>
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<tr>
<td>Non-Title I Schools</td>
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</tr>
<tr>
<td>RD.</td>
<td>58.04 (52)</td>
<td>59.67 (64)</td>
<td>68.08 (69)</td>
<td>58.51 (81)</td>
<td>64.21 (84)</td>
<td>+32</td>
</tr>
<tr>
<td>MA.</td>
<td>68.63 (58)</td>
<td>71.02 (74)</td>
<td>82.00 (80)</td>
<td>62.59 (89)</td>
<td>73.81 (93)</td>
<td>+35</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
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<tr>
<td>RD.</td>
<td>50.89 (50)</td>
<td>44.48 (58)</td>
<td>53.12 (61)</td>
<td>41.66 (72)</td>
<td>46.17 (74)</td>
<td>+24</td>
</tr>
<tr>
<td>MA.</td>
<td>62.08 (55)</td>
<td>53.63 (66)</td>
<td>66.34 (72)</td>
<td>47.78 (82)</td>
<td>54.39 (85)</td>
<td>+30</td>
</tr>
</tbody>
</table>

( ) = Standard Score
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Fraunce, R.W., Murton, Bonnie J. *Factors Associated with Differing Degrees of Student Mobility*. April 1966.


4. *ibid.* p. 63-64.


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