EVALUATIONS BY STUDENTS, TEACHERS, AND MANAGERS

OF THE BENTON HARBOR-ST. JOSEPH, MICHIGAN

INDUSTRIAL MANAGEMENT TRAINING PROGRAM

By

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A THESIS

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

DOCTOR OF PHILOSOPHY

Department of Secondary Education and Curriculum
College of Education

1969

ABSTRACT

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The purpose of the study was to investigate the atti-
tudes and reactions of three groups toward the Industrial
Management Training Program (IMTP): curricula, instruc-
tors, and the administrators of the program. These three
groups were: former students of the program, companies
from which students came, and teachers of the program.

The study was conducted in Benton Harbor-St. Joseph,
Michigan in 1966. A battery of four instruments were ad-
ministered: (a) Questionnaire Student (Q.S.), (b) Ques-
tionnaire Teacher (Q.T.), (c) Questionnaire Manager (Q.M.),
and (d) Questionnaire General (Q.G.), the latter being
used only with the student and teacher samples. The Q.G.
was an instrument dealing with attitude toward change
based on certain demographic and institutional dissatis-
faction questions.

The distribution and administration of the instru-
ments was done by the participating companies through their
personnel departments under the supervision of the author.

The sample consisted of 330 students, 29 teachers, and 20 companies. The students and teachers were all men from middle management and above; most had some training beyond high school and several held college degrees.

The purpose of the study was primarily descriptive but also contained hypothesis testing of relationships such as the following:

1. Number of courses and salary.

2. Number of courses and change orientation.

3. Number of courses and amount of education.

4. Age and change orientation.

5. Education and change orientation.

6. Salary and change orientation.

7. Institutional dissatisfaction and change orientation.

8. Insitutional dissatisfaction and salary.

A set of 46 tables contains the descriptive data and the results of the hypotheses testing. Results of the hypotheses testing for the student sample revealed one half or four of the eight general hypotheses were confirmed. The remaining four were rejected.

Student Hypotheses

H-1: The data indicated that salary and number of courses taken were related at the .05 level. H-1 was accepted.

H-2: The data indicated there was *no* relationship between the number of courses taken and change orientation. H-2 was rejected.

H-3: The data indicated that the number of courses taken and amount of education are related at the .01 level. H-3 was accepted.

H-4: The data indicated there was no relation between change orientation and age. H-4 was rejected.

H-5: The data indicated a positive relationship between change orientation and the amount of education at the .05 level. H-5 was accepted.

H-6: The data indicated a positive relationship between change orientation and salary at the .05 level. H-6 was accepted.

H-7: The data indicated there was no relation between high scores on institutional satisfaction and high scores on change orientation. H-7 was *rejected*.

H-8: The data indicated there was no relation between high scores on institutional satisfaction and high salaries. H-8 was rejected.

The teacher sample was tested for only five of the eight general hypotheses and only one was accepted. The results are shown below.

Teacher Hypotheses

H-9: The data indicated a positive relationship between change orientation and age at the .05 level. H-9 was accepted.

H-10: The data indicated there was no relation between change orientation and amount of education. H-10 was rejected.

H-11: The data indicated there was no relation between change orientation and institutional satisfaction. H-11 was rejected.

H-12: The data indicated there was no relation between change orientation and salary. H-12 was rejected.

H-13: The data indicated there was no relation between institutional satisfaction and salary. H-13 was rejected.

There were no hypotheses tested on management data.

A major implication of the present research is for management to take a more scientific look at their goals and objectives for training personnel, and then to require periodic evaluation to ascertain if these goals are being accomplished in the most effective and efficient manner. There is a great need for more studies utilizing control groups, to ascertain the real worth of the existing training methods.

ACKNOWLEDGMENTS

encourage me to continue, I dedicate this work. To John, Michele, and Sherry, I must say thanks for all their understanding, cooperation, and tolerance during some very trying days. To Michael and Phillip (the twins), may they enjoy the benefits of a full-time father.

To John Kapral, I extend my thanks for his help in typing my rough draft.

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CHAPTER I

INTRODUCTION

In our fast moving, technological society, the need for skilled labor and trained technicians is increasingly evident. This need, emphasized by technology and our space program, has caused federal, state, and local governments to give top priority to training programs in technical areas. Included in this training, in addition to technicians and skilled labor, are personnel who make up a group called managers. This management group is most often trained by industry itself with private funds to meet today's challenging industrial demands.

Scattered across the country one can find various management training programs, most operating under unique circumstances, but few if any operating with much thought given to the evaluation of what they are accomplishing.

The need for evaluation of their training program was voiced by the Executive Committee of the Benton Harbor-St. Joseph, Michigan Industrial Management Training Program (IMTP). The members of this committee felt it was pertinent to their future operations to find out where they were headed and what should be done to meet the future needs of their industrial community. Out of this

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realization, came the opportunity to conduct the present
research project. The specific problem of this research
was an evaluation of the IMTP over the twelve years of
its existence--1954-1966.

History and Development of the IMTP

The IMTP had its genesis in the early 1950's under
the guiding enthusiasm of Mr. Sid Mitchell, former Super-
intendent of the Benton Harbor school system, which then
included the local Community College. Another person
closely associated with Mr. Mitchell at the inception of
the lMTP, was Mr. Russel Adams, Twin Cities' Vocational
Director. Mr. Mitchell, now retired, held a broad concept
of education, and was aware of and interested in the many
facets of education that he believed were needed by the
community. It was in this spirit that Messrs. Mitchell
and Adams held some informal conversations with various
industrial leaders in the Benton Harbor-St. Joseph area,
to try to provide something in the educational realm for
management training. Upon finding an interest prevalent
in the industrial community, Messrs. Mitchell and Adams,
through the College of Education at Michigan State Uni-
versity, obtained the services of Dr. Lawrence Borosage,
from the area of Industrial and Vocational Education.

After obtaining the services of Dr. Borosage, Messrs.
Mitchell and Adams held an informal luncheon meeting in
Benton Harbor in the summer of 1953. At this meeting,

approximately 50 industrial leaders were in attendance.
The objective of this meeting was to test broader community
interest in developing a program in management training.
At this point in the program's development, it was felt
that small business concerns would desire to participate
in such a program. With sufficient interest generated at
this meeting, a steering committee was established. While
working with this committee, Dr. Borosage presented three
assumptions often perceived as pertaining to the estab-
lishment and progress of such programs. One of the as-
sumptions was; to select a group from local industry who
were interested in working as instructors. A second
assumption was; these men would need special training,
which could be provided under the direction of Dr. Borosage.

What might be called step three in the developmental
history of the IMTP, was for Dr. Borosage to conduct ten
training sessions for the potential trainees or instructors
of the program. This Dr. Borosage did in ten, three-hour
sessions, covering ten weeks. While the training phase
was being held for instructors by Dr. Borosage, Messrs.
Lovellete, Adams, and others were preparing courses to be
started by the local instructors.

In summary, the training program was to develop on
three assumptions:

1. Local industries were to supply a group of men
   who were to work as instructors in the program.

2. It was postulated that the local community could have a self-sufficient program using industrial or adult education people as instructors, and that the cost of such a venture would be paid by industry.

3. The program would move under the direction of local school administrators and a steering committee. The committee to be composed of people from industry actively participating in the program, its formation, and important decisions pertaining to its progress.

It was initially felt that the program would last three to four years, then taper off and possibly cease. Instead, the program has had continued growth, has developed several top instructors, and has encouraged some participants to continue their education toward degrees. It is still in existence after fifteen years.

After twelve years of continuous operation, the IMTP Steering Committee in 1966, felt that the program needed an evaluation to ascertain its effectveness as well as direction for the future.

Hypotheses of the Study

Specific hypotheses were formulated between the variables of the study in the following areas:

1. Number of courses taken and size of company.

2. Number of courses and salary.

3. Number of courses and change orientation.

4. Number of courses and amount of education.

5. Age and change orientation.

6. Education and change orientation.

7. Salary and change orientation.

8. Institutional dissatisfaction and change orientation.

9. Institutional dissatisfaction and salary.

Organization of the Thesis

The thesis is organized as follows:

In Chapter I, the history of the program is presented; also the reason for the need and purpose of the study. Hypotheses formulated between variables are also presented.

Chapter II contains a review of previous research relative to the problem. Listed are overviews of some of the most recent and more scientifically oriented studies which utilize experimental techniques.

Chapter III describes the methodology and procedures of the study. A general description of the instrumentation, design, participants, and the statistical procedures used in the analysis of the data are included.

Chapter IV presents the research data and results in tabular and explanatory form.

Chapter V is a discussion of the data, implications, and recommendations.

CHAPTER II

SURVEY OF RELATED LITERATURE

During the summer of 1966 a preliminary review of the literature on evaluation of training programs had revealed a limited number of studies in the area. Again in the summer of 1969, a thorough survey of the related literature was made under various headings such as the following: (a) employess, training of; (b) evaluation; (c) executives; (d) management; (e) management, evaluation of; (f) management, development of; (g) manpower, development of; (h) job evaluation; and (i) training.

The bibliographic sources researched were: the American Management Association Index, Business Periodical Index, Journal of American Society of Training Directors (ASTD), Journal of Management Studies, Personnel Journal, Business Horizons, Iron Age, Aviation Week, Psychological Quarterly, Yearbook of Business Studies (Hofstra University, Management Development Programs), Harvard Business Review, Administrative Science Quarterly, PERSONNEL Business Index, Administrative Management, Management Index, Factory, Harvard Business School Bulletin, Journal of the College and University Personnel Association, Occupational Psychology, Automation, and college texts related to the topic researched.

The College of Business and the College of Engineering Libraries at Michigan State University were utilized for research and almost nothing was found on the topic of "Evaluation of a Management Training Program." Further research was completed in the main library at Michigan State University. These references pertaining to evaluation are discussed below.

Introduction

The article by Mahoney, Jerdee, and Karman (1960) presented some relevant facts concerning the evaluation of management programs. Considerable effort and resources have been expended on various programs and activities for management development in recent years. This concern for management development reflects a growing awareness of the contribution of management performance to the continued success of our economy as well as the individual enterprise. Various pressures during the past fifteen years have contributed to an increasing concern for the efficient utilization of managerial resources, and numerous activities are being conducted by individual companies to improve the identification of management potential and to develop and utilize this potential more effectively.

An examination of management training programs reveals wide differences of philosophy, objectives, and methods. The diversity of approaches used in management training has increased in recent years with attempts to

improve this training. Many of these approaches to management training are accepted as desirable on the basis of face validity--the objectives appear desirable and the methods employed seem workable.

Taylor (1959) says that face validity is not sufficient in the evaluation of management training activities, however; a somewhat more objective evaluation is required. Careful evaluation of these training activites would serve several purposes. First considerable cost is involved in many of these activities and there is a need to determine whether or not the results justify the expense. Furthermore, objective evaluation of the many different training approaches would facilitate the choice of training techniques most appropriate for given needs.

And finally, precise evaluation of training activities would identify the more effective and the less effective aspects of each, and thus contribute to the improvement of these activities. The need for management training and development will continue for some time, and precise evaluation of training activites at the present time would contribute to improved and more effective training in the future. Face validity alone is not sufficient to identify the differential effects of alternative training activities. Only careful, objective measurement of the results of management training activities will provide the evaluative information needed.

Training Evaluation
Approaches

The general concept of evaluation is relatively simple. It involves measurement and comparison with a predetermined standard. The evaluation sought in management development is basically similar to the evaluation sought for other management practices--how effectively and efficiently are the desired results obtained? The actual procedure for evaluation can be quite involved, however, despite the simplicity of concept. The objectives sought in training must be defined operationally in such a manner that they can be measured, criteria for the evaluation must be specified and measures of these criteria developed, and procedures for measurement and comparison must be developed. All of these factors determine the validity and usefulness of the evaluation.

The IMTP committee stated its objectives to be primarily in the development of middle management skills, with emphasis on the small companies in the area and concentrated in the technical aspects of management.

Criteria for Evaluation

Evaluation of management training activities is possible only where specific objectives and standards can be established as criteria for evaluation. Measurement of the achievement of these objectives or conformity to the established standards indicates the effectiveness of the activity. A distinction often is made between substantive and

procedural evaluation. The substantive evaluation is con-
cerned with the conformity of practice to certain estab-
lished standards considered essential to the achievement
of desired effects. Both types of evaluation were sought
in the IMTP study.

Mahler (1958, p. 80-81) notes in a survey of manage-
ment development programs made at the University of Michi-
gan, thirteen ways in which a program may be considered
to be of value:

1. Improves technical performance.
2. Improves supervision and leadership at each
   level.
3. Improves interdepartmental cooperation.
4. Highlights individual weaknesses.
5. Attracts good men to the firm.
6. Facilitates sound promotion-from-within
   policies.
7. Permits qualifications of key people to be
   better known.
8. Creates reserves in management ranks.
9. Makes organization more flexible by increased
   versatility of its members.
10. Improves organizational structure.
11. Stimulates junior executives to do better work.
12. Keeps abreast of technical progress and econo-
    mic conditions.
13. Broadens key men in middle management.

Mahler continues to say that these values can be reduced
to two major objectives which most organizations say they
are striving for in their management development programs.
The first is an adequate reserve of qualified managers
and the second is improved performance in current posi-
tions. These objectives must be analyzed further. If an
individual manager is asked to improve his current per-
formance, he is, in effect, expected to change in some way.

If he is expected to become qualified to take over greater responsibilities in the future, he is expected to change over a period of time. Thus both objectives imply the need for change in individuals. The end result--the payoff of a management development program--is individual growth.

MacKinney (1957) and Mahler (1957) state that:

> Choice of criteria for the evaluation of training is determined by the definition of objectives sought in the training. Definition of the objectives of training activities usually reveals several different levels or degrees of objectives, all of which can be relevant in evaluation. For example, the immediate objectives of training may concern the achievement of specific knowledges, skills, or attitudes among those trained. Achievement of these immediate objectives is desired, however, because of the assumed impact upon performance of those trained, a second level of objectives concerns improved performance of those trained. A third level of objectives concerns the desired impact upon organization performance which might be measured in terms of growth, costs, returns, turnover, and other indices of organization performance. Criteria for evaluation of training activities can be selected from all of these different levels of objectives.

In one sense the third level of objectives, organization performance, is most meaningful. However, measures of organization performance often are not relevant in the evaluation of a specific training program since organization performance is influenced by many factors in addition to the training program. Somewhat more immediate objectives of training programs are often measured in evaluation, and relationships between these immediate objectives and the ultimate objectives are assumed. However, logical relationships between achievement of the immediate

objectives of training and the ultimate objectives of changed organization performance need not exist in fact; changes in knowledge, skill, and attitude occuring in a training program often are not translated into either changed performance of individuals or organizations (Fleishman, Harris & Burtt, 1955). Consequently, the limitations of criteria based upon immediate training objectives should be realized, and conclusions of effectiveness limited to the specific measures employed.

Lynton and Pareek (1967, pp. 310-311) state that:

> If training aims at definite changes on the job in an organization, then two criticisms of prevailing evaluation attempts must follow. In the first place, the usual rough and ready 'measure' of training simply do not suffice for our purpose. One, the 'number trained' tells nothing at all, even about the participants learning. They may have learned very little or next to nothing. They may even have learned the opposite of what was intended, for instance, that training is a hateful experience and a waste of time, or a time of rest, or an avenue to high status. If this is so, the training experience has done damage, and the participants may have carried away with them a jaundiced anticipation of future training opportunities for themselves and others and of the reputation of the training institution and its courses. One can be sure the participants will spread these feelings among their friends and collegues. These possibilities are all generally accepted; e.g., the 'number trained' is used mostly to justify faculty strengths and training budgets, not to measure the effectiveness of training.

Measures of the participants' learning at the end of the program provide a much more promising criterion of the effectiveness of training--but at the risk of a different kind of confusion. These measures look specific

and are often quantifiable. They satisfy the urge to con-
creteness that helps trainers cover any uncertainty they
feel about the effectiveness of their activities.

Mahoney, Jerdee, and Korman (1960, p. 84) contend:

> The objectives chosen for evaluation must be
> operationally defined in terms of specific meas-
> ures in the development of criteria for evalua-
> tion. Various approaches are used in this meas-
> urement of objectives, the reliability and validity
> of the approaches varying considerably. Probably
> the most common and the least reliable approach
> to measurement involves the solicitation of opin-
> ions from those in a position to observe the
> training activity. For example, participants in
> the training are polled for their opinions re-
> garding the value of the training. These opin-
> ions can be useful as indications of acceptance
> of the training by participants, but they hardly
> provide reliable and valid measures of factors
> such as increase of knowledge, skill and perfor-
> mance.

Lynton and Pareek (1967, p. 311) state that the effective-
ness of training is determined by all three partners in
it; the participant, the institution, and the work organi-
zation.

Structured rating scales which focus attention upon
specific factors usually provide somewhat more reliable
measures, but they still measure opinion and the validity
of opinions as measures of knowledge and skill is ques-
tionable (Mahoney, et. al., 1960, p. 84).

Design for Evaluation

Three basic designs for evaluation are found in
current practices. The first of these focuses attention
upon the level of achievement of objectives and completion

of training activities; criterion measures are obtained
after the training has been completed. This approach indi-
cates the degree to which objectives have been achieved,
but it does not indicate the change in achievement associ-
ated with the training; it provides no indication of the
increase in achievement of objectives. A second approach
involves measurement both before and after completion of
the training. These measures are compared to indicate
the change in achievement of objectives associated with
the training activities. This approach, however, often
does not indicate the achievement which can be attributed
specifically to training. A third approach involves appli-
cation of the same measures to a control group similar
in all respects to the experimental group undergoing
training. Achievement of the experimental group is com-
pared with that of the control group to indicate the
achievement specifically associated with the training.

Most of the evaluations of management training and
development activities have measured achievement of results
following training, with increasing numbers of evaluation
studies obtaining both before-and-after measures. There
have been relatively few evaluation studies involving con-
trolled experiments, although the experimental approach
yields the most useful and relevant measures for evalu-
ation (Baxter, Taafee & Hughes, 1953; Goodacre, 1957;
Mosel and Tsacharis, 1954). Application of the experimental

approach to evaluation of management training has grown
slowly, probably because of a reluctance to withhold
training opportunities which appear desirable from a por-
tion of those who might benefit. Also, it is difficult
to design a controlled experiment without introducing a
bias in the designation of control and experimental groups.

Mahler (1957) states that three levels or degrees of
thoroughness appear to be characteristic of program evalu-
ations:

> Common-sense evaluation The evaluator in the
> common-sense approach, looks around for evidence,
> which may include reported facts--such as number
> of promotions made; inferences--conclusions based
> on experiences or observations; or feelings--
> reported expressions of convictions. This kind of
> evaluation obviously lacks precision and--in many
> cases--authority. While it is impossible to know
> how much evaluation effort falls into this cate-
> gory, it certainly predominates. However, more
> and more organizations are advancing beyond this
> level and adopting more precise methods.
> Systematic evaluation The type of evidence
> to be collected is decided upon in advance when
> systematic evaluation is practiced. Methods are
> used which permit quantification. Judgments or in-
> ferences are collected systematically by interviews,
> questionnaires, or group discussions.

Mahler (1957) states that a good example of the use
of such a method is provided by Koppers Company, Inc.

> At Koppers, attitude surveys of employees were
> used to get information on the extent to which
> management development activities had resulted in
> a change in subordinates' feelings toward their
> supervisors and thus toward the company as a whole.
> Another example is the use of questionnaires by
> Consolidated Edison to secure systematic reactions
> to the job-rotation program. In this case, infor-
> mation was obtained from participants in the pro-
> gram as well as from their superiors. As a third

case in point, the interview technique was used by
the Psychological Corporation in its study at
Detroit Edison, where both subordinates and super-
visors were interviewed on their reaction to the
management development program.

Mahler further states that:

Certain evidence as to the value of a management
development program can also be drawn both from
regular reports and records and from special re-
ports. Standard Oil (N.J.) has used this tech-
nique in reporting the number of jobs for which
replacements are available. Johnson and Johnson
has employed it in analyzing the extent to which
within-company promotion policies are being fol-
lowed. Occasionally, a situation is sufficiently
clear-cut that credit will be given to a develop-
ment program for having made a direct contribution
to dollar savings. Lawrence A. Appley cites the
example of a Montgomery Ward executive who attri-
buted to the management development program a 27
per cent increase in tonnage of goods sold--accom-
panied by a reduction in total payroll costs.

Efforts to secure systematic judgments, whether by
interview questionnaire, some merit-rating plan, or the use
of reports and records, are of course preferable to the
more casual approach of the "common-sense" evaluation. How-
ever, the systematic method will have to find wider adop-
tion if it is to yield enough precise information to per-
mit quantification of data, which will facilitate inter-
pretation of results.

Mahler goes on to explain his third characteristic
of program evaluation:

Experimental evaluation The data for experi-
mental evaluation are collected under certain controlled
conditions. For example, attitudes may be measured be-
fore the program begins and after it has been under way
for a while. Measurements may be taken thereafter at
regular intervals during the course of the program.

> The most rigorous design provides for a control and
> an experimental group, with the aim first to equalize
> the conditions and then to provide some treatment for
> the experimental group, leaving the control group
> alone. If changes are observed in the experimental
> group but not in the control group, it follows that
> these are effects of the variable of treatment.

Kirkpatrick (1960, pp. 14-18) describes briefly some

of the best evaluation studies utilizing the experimental

techniques mentioned above. His briefs are presented

below.

The Fleishman-Harris Studies.--To evaluate a training

program that had been conducted at the Central School of

The International Harvester Company, Fleishman developed

a study design and a battery of research instruments for

measuring the effectiveness of the training. Seven paper-

and-pencil questionnaires were used and the trainees, their

superiors, and their subordinates were all surveyed.

To supplement the Fleishman data, Harris conducted

a follow-up study in the same organization. He used a

before-and-after measure of job performance and worked

with experimental and control groups. He obtained informa-

tion from the trainees themselves as well as from their

subordinates.

Survey Research Center Studies.--These studies at the

University of Michigan have contributed much to evaluation

of training programs in terms of on-the-job behavior. To

measure the effectiveness of a human relations program con-

ducted by Maier at the Detroit Edison Company and to measure

the results of an experimental program called "feedback,"
a scientific approach to evaluation was used. A basic
design was to use a before-and-after measure of on-the-
job performance with experimental as well as control groups.
The supervisors receiving the training as well as their
subordinates were surveyed in order to compare the results
of the research. The instrument used for measuring these
changes was an attitude and opinion survey designed and
developed in the Survey Research Center.

The Lindholm Study.--This was carried out in the home
office of a small insurance company during the period of
October, 1950 to May, 1951. A questionnaire developed
as part of the research program of the Industrial Relations
Center of the University of Minnesota was used. It was
given on a before-and-after basis to the subordinates of
those who took the training. No control group was used.
A statistical analysis of the before-and-after results of
the attitude survey determined the effectiveness of the
program in terms of on-the-job behavior.

The Blocker Study.--A different approach was used in
the study, conducted in an insurance company with approxi-
mately 600 employees. Fifteen supervisors who took a course
on "Democratic Leadership" were analyzed during the three
month period following the course. Eight of the supervisors
were classified as authoritarian based on their behavior
prior to the program.

During the three month period immediately following the program, the changes in behavior of the supervisors were analyzed through a study of their interview records. They used standard printed forms which made provision for recording the reason for the interview, attitude of the employee, comments of the supervisor, and action taken, if any. Each supervisor was required to make a complete record of each interview. They did not know that these records were to be used for an evaluation study. There were a total of 376 interviews with 186 employees.

The interview records were classified as authoritarian or democratic. The changes in interview approach and techniques were studied during the three month period following the course to determine if on-the-job behavior of the supervisor changed.

Tarnopol Approach.--This example suggests the approach to use as well as a specific example of an evaluation experiment. He believes in the employee attitude survey given on a before-and-after basis using control as well as experimental groups. Tarnopol stresses that "in our experience, five employees is a good minimum for measuring the behavior of their supervisor." He also stresses that "although canned questionnaires are available, it is advisable to use measuring instruments that are specifically suited to the requirements of both your company and your training program."

In his employee attitude approach, Tarnopol has sug-
gested inserting some neutral questions which do not relate
to the training being given. This is an added factor in
interpreting the results of the research.

The Moon-Hariton Study.--This study was made in an
Engineering Section of a department of the General Electric
Company in 1956. The staff of the General Electric Company
was assisted by a representative of the Psychological
Corporation.

In the spring of 1958, two years after the adoption
of a new appraisal and training program, a decision was
made to attempt to evaluate its effectiveness. It was felt
that the opinion of the subordinates about changes in the
managers' attitudes and behavior would provide a better
measure than what the managers themselves thought about the
benefits of the program. Thus a questionnaire was designed
to obtain the subordinates' view about changes in their
managers. Nevertheless, it was felt that the opinions of
the manager would add to the picture. Accordingly, they
were also surveyed.

The questionnaire asked the respondents to compare
present conditions with what they were two years ago. In
other words, instead of measuring the attitudes before and
after the program, the subordinates and the managers were
asked to indicate what changes had taken place during the
last two years.

The Buchanan-Brunstetter Study.--This study at the
Republic Aviation Corporation attempted to measure results
of a training program. A questionnaire was used and an
experimental and a control group were measured. The ex-
perimental group had received the training program a year
previously, while the control group was scheduled to re-
ceive it during the following year. The subordinates of
the supervisors in each one of these groups were asked to
complete a questionnaire which related to the on-the-job
behavior of their supervisor. After answering the ques-
tionnaire in which they described the job behavior of their
supervisor they were asked to go over the questionnaire
again and to place a check opposite any items: "(a)
which you think are more effectively done now than a year
ago; (b) which you think are less effectively done now
than a year ago." (Kirkpatrick, 1960)

In this experiment as well as in the Moon-Hariton
approach, the subordinates were asked to indicate what
changes in behavior had taken place during the last year.
This was done because a-before-measure of the behavior
had not been made.

The Stroud Study.--A new training program called the
"Personal Factors in Management" was evaluated at the Bell
Telephone Company of Pennsylvania. Several different ap-
proaches were used to compare the results and obtain a
more valid indication of on-the-job behavioral changes

that resulted from the program. The first step was the formulation of a questionnaire to be filled out by four separate groups: (a) conferees, (b) controllees (supervisors not taking the course), (c) superiors of the conferees, and (d) superiors of the controllees.

The first part of the questionnaire was the "Consideration Scale" taken from the leader behavior description questionnaire originated in the Ohio State Leadership studies. The second part of the questionnaire was called the "Critical Incident" section in which the conferee and control groups were asked to describe four types of incidents that had occurred on the job. The third and final section of the questionnaire applied to the conferees only. They were asked to rate the extent to which they felt the training course had helped them achieve each of its five stated objectives.

It was decided to conduct an extensive evaluation of the training program after the program had begun. Therefore it was not possible to make a before-and-after comparison. In this study, an attempt was made to get the questionnaire respondents to compare on-the-job behavior before the program with that following the program. According to Stroud, it would have been better to measure behavior prior to the program and then compare it to behavior measured after the program.

Kirkpatrick (1960) states that the study on "Evaluating A Human Relations Training Program" is one of the best attempts he has discovered. The various evaluation results are compared and fairly concrete interpretations made.

The Sorensen Study.--This is the most comprehensive research that has been done to evaluate the effectiveness of a training program in terms of on-the-job behavior. It was made at the Crotonville Advanced Management Course of the General Electric Company. It was called the "Observed Changes Enquiry."

The purpose of the "enquiry" was to answer two questions:

1. Have manager graduates of General Electric's Advanced Management Course of 1956 been observed to have changed in their manner of managing?

2. What inferences may be made from similarities and differences of changes observed in graduates and non-graduates?

First of all, the managers (graduates and non-graduates alike) were asked to indicate changes they had observed in their own manner of managing during the previous twelve months. Secondly, subordinates were asked to describe changes they had observed in the managers during the past twelve months. Thirdly, their peers (looking sideways) were asked to describe changes in

behavior. And finally, the superiors of the control and experimental groups were asked to describe the same changes in behavior. This gave Sorensen an excellent opportunity to compare the observed changes of all four groups.

In this extensive research, Sorensen used experimental as well as control groups. He also used four different approaches to measure observed changes. These include the man himself, his subordinates, his peers, and his supervisors. In this research, he did not use a before-and-after measure but rather asked each of the participants to indicate what changes, if any, had taken place during the past year.

What is (i.e., Factors) Needed to Improve Evaluation

Evaluation, as stated, is taking place whether we like it or not. In some companies developmental activities are the first to be dropped during a cost reduction program--a step that in itself reflects one type of evaluation. Those with long memories can well recall what happened in the 1930's, when development went by the board. In the absence of concrete evidence of the value of development programs, the same thing might happen at some time in the future. Thus a crusader might be moved to sound the warning: evaluate or perish.

The choice is between unsystematic, fragmentary, impulsive evaluations and planned, comprehensive, seriously

considered studies. If the importance of the management problems justifies formalizing the approach, then these problems also justify formalizing the evaluation.

A few suggestions for improving evaluation would include the following: (Mahler, 1958, pp. 87-88)

1. Top management should ask for periodic evaluation.

2. Neither top management nor coordinators should be satisfied with "common-sense" evaluation.

3. Courageous pioneers are needed to cross the frontier into the relatively unexplored territory of experimental evaluation.

4. Evaluation requires as serious attention and as much advance planning as any other phase of executive development.

5. Greater utilization of the professional psychologist is needed. The psychologist can be expected to contribute improved measuring instruments and improved evaluation techniques, and to assist in efficient conduct of studies.

6. The emphasis in all evaluation must be on improving the program, not justifying it. Evaluation, in the final analysis, reflects how line management, assisted by a staff group, is carrying out its responsibility.

7. Evaluation to determine increased capacity to do a current job should consider:

    a. Final results (reduced cost, higher return on investment, etc.).
    b. Intermediate results (improved planning, higher morale, etc.).
    c. Practices deemed to influence results (such as regular coaching of subordinates).

8. Exchange of information is a major pastime of coordinators of management development. Pooling of evaluation results, particularly negative results, will stimulate more and better evaluation.

9. A conviction that evaluation can and must be attempted is an underlying necessity.

Summary

When reviewing the literature, it is apparent that evaluation has received much greater attention in recent years. Much progress has been made in developing instrumentation and in the processing of data to aid in the difficult task of evaluation. Management is more aware of the need to train its executives as they are demanding more from them due to technological advances. The college graduate is no longer trained in the practical vein but rather he is more theory oriented, and brings less usable practical skills to his employer. This lack of practical skill has called for more in-house training programs and hence more concern with the evaluation of existing programs. The literature indicates a trend to use more scientific means to evaluate these training programs.

The questions being asked most today by management are: "Are we getting the most for our money?" and "Are we training for the right things?" How do we go about [the task of] finding out the tasks for which we should be training? Few studies are available and much pressure is currently being put on Directors of Personnel and Management Training Directors to conduct evaluations to ascertain effectiveness of existing programs and methods.

CHAPTER III

DESIGN AND PROCEDURE OF THE STUDY

The initial step in formulation of the instruments
was to contact the chairman of the IMTP, Mr. Anson L
Lovellette, and arrange a meeting with the Steering Com-
mittee of the Industrial Management Training Program.
This was held in St. Joseph, Michigan on August 20, 1965,
to obtain the views and desires of the committee regarding
appropriate actions for evaluation of their program.

Instrumentation

Starting from the first meeting, ideas were generated
and a picture of needs and objectives began to unfold. As
a result of this meeting, a tentative proposal was formu-
lated. A second meeting was held to discuss the tenta-
tive proposal, at which time the acting president of Lake
Michigan College was in attendance as a member of the
committee.

A survey of existing doctoral theses, forms, ques-
tionnaires, studies, etc. was made at this time; which
covered the M.S.U. Library, instructional material center,
the State of Michigan Library, and the Department of Public
Instruction State of Michigan.

At the Department of Public Instruction, a question-
naire was found from San Bernardino, California, which
proved most helpful in devising the form used for that
part of the questionnaire dealing with the courses offered
in the IMTP. In addition to the management aspect, cer-
tain demographic questions were needed, and also attitu-
dinal questions pertaining to acceptance of change.

After further development of instrumentation (see
Appendix for final version), a meeting was held again in
Benton Harbor to examine the contents in regard to the
criteria set down in the proposal. In attendance were
Mr. Anson Lovellette, Mr. Walter Laietz, Dr. Clarence
Schauer, Mr. Gordon McKnight, Dr. John E. Jordan, and
Mr. John Polomsky.

The meeting resulted in some revisions and deletions
in the research instrument. A decision was also made to
cover only those industries included in the IMTP, rather
than all industries in the area. The instruments were
again revised and another meeting of the IMTP committee
was held at Lake Michigan College to approve the first
revision.

Student Questionnaire

The student questionnaire (Q.S.--Appendix C) dealt
with questions pertaining to number of courses taken,
reasons for taking courses, time course offered, facilities,
caliber of instruction, personal evaluation of course

content, etc. The questionnaire attempted to reveal the perception of the IMTP as perceived by the student. Certain variables were built into the questionnaire to verify consistency of the student in his choice of responses.

Teacher Questionnaire

The teacher questionnaire (Q.T.--Appendix B) paralleled the Q.S. somewhat, but dealt with the perceptions of the IMTP held by the teaching staff. It also served as control data when analyzed with the data received from students. The teacher stated what he felt were important assets for performing his tasks to meet expected objectives of the course.

General Questionnaire

Each student and teacher questionnaire was supplemented with a general questionnaire (Q.G.--Appendix E). This general questionnaire contained demographic information which was used in analysis of attitudes toward change. It has been empirically developed since 1961 in conjunction with an international study conducted by Jordan (1968).

Management Questionnaire

The management form of the Q.M. I and II was entirely different from the Q.S. and Q.T. The types of information sought by the questionnaire dealt with those attitudes held by management regarding the value it felt it has obtained from the program. The Q.M. II contained projections

of the companies' manpower needs for the future, and its
perceptions in regards to additional curricula. It also
dealt with the competence management felt was required in
performing a job. Q.M. form I covered the same basic
questions regarding facilities, time, etc., that was used
in questionnaires Q.S. and Q.T. There was no Q.G. at-
tached to the management form.

Printing was done by the Bendix Corporation. Col-
lating, stapling, sorting, addressing, posting, and appro-
priate educational and coding stamping was done by the
researcher. A code of S, M, or T was stamped on day and
week received to permit "wave" and other types of data
analysis if desired.

At a luncheon held with several companies, the pro-
cedures of administration were explained and several hun-
dred questionnaires were handed out. Mr. Anson Lovellette,
the Director of Industrial Relations for the Bendix Corpo-
ration, agreed to distribute all questionnaires to students
and managers, and the committee assigned Lake Michigan
College to distribute all teacher forms.

Research Design

The purpose of the study was to investigate the atti-
tudes and reactions of three groups toward the organization,
functioning, and effectiveness of the Industrial Manage-
ment Training Program (IMTP) of Benton Harbor-St. Joseph,
Michigan. These three groups were: former students of

the program, companies from which the students came, and
the teachers of the program.

Research design has two basic purposes: (a) to pro-
vide answers to the research questions being investigated
and (b) to control unknown variance or fluctuations in
the variables being researched. Research design is the
plan, structure, and strategy of investigation.

The present research is primarily descriptive but
also includes hypothesis testing. Its aim is not primarily
theory development or testing but a variant of operations
research--to describe what is and some of the correlates
of the conditions that exist. The overall plan of the
present research was simple and straightforward: to in-
vestigate how students, companies, and teachers felt about
the IMTP on designated topics.

The structure of the present research consisted pri-
marily of a parallel set of questions to the three groups
of the study; i.e., students, companies, and teachers.
The research instruments were planned to enable comparisons
between the three groups on similar issues or questions;
e.g., do students, companies, and teachers feel the same
or differently about the benefit of the courses that have
been given by the IMTP?

In addition to the parallel set of questions to the
three groups, specific items were formulated for each
group to answer designated questions about that particular

group; e.g., projected "training needs for companies" and reasons "why teachers taught." Finally, a common set of questions were devised for the teachers and students to ascertain certain demographic aspects such as age, sex, and amount of education as well as how they felt about certain institutions within society and what they felt about change in areas such as automation, birth control, child-rearing practices, and self-change ability.

The strategy of the present research was to collect specific information in questionnaire form from students, companies, and teachers and to analyze this data in appropriate form.

Participants in the Study

The participants in the study were the students, companies, and teachers in the IMTP program.

Students

A list was secured of all students who had taken courses from the IMTP. The records of the course offerings of the IMTP were at Lake Michigan College in Benton Harbor. The student record also contained the company with which he was affiliated since only persons recommended by a company could be students in the IMTP. The final list contained 1,315 students who had taken one or more courses. Questionnaires were made available to 1,315 of these students.

Managers

The list of companies affiliated with the IMTP were secured from two sources: the student-company list described above and a list of companies secured from the executive committee of the IMTP. The final list contained 64 companies who had at least nominal affiliation with the IMTP. Table 4.2 lists the companies, the number of students from each who had taken courses in the IMTP, and Table 4.3 contains the classification of the companies by type of product and/or activity.

Teachers

A list of all teachers who had taught one or more courses in the IMTP was secured from Lake Michigan College. The final list contained 91 names.

Code Book

The data were analyzed with the aid of the Michigan State University CDC 3600 computer and several programs from the computer library. The use of the computer in a study of this type necessitates the formulation of instruments that state questions in a manner that can be coded on an IBM card. This involves careful planning during the formation of the instruments. In this study, there were four separate parts (Q.S., Q.T., Q.M.I., and Q.M.II) to the code book; each part designates the question to be coded and the particular questionnaire to which it pertains.

In each case, the code book follows the same format; that is, the column to the left contains the column number of the IBM card; the second column contains the question number from the questionnaire; the third column (item detail) contains an abbreviated form of the items, and the fourth column contains the code within each column of the IBM card with an explanation of the code (Appendix F).

Statistical Procedures

Descriptive

Two frequency Column Count Programs (Clark, 1964), designated as FCC I and FCC II, were used to compile the frequency distributions for every item. In other studies this has proved to be a useful step in selecting variables for analysis and in gaining a "feel" for working with the data.

In the CDC 3600 MDSTAT program (Ruble & Rafter, 1966) a great deal of data can be gathered from one analysis. Separate analyses can be done for the total group and for any number of specified sub-groups, or partitionings, of the data. For each specified group (e.g., manager, student, teacher, etc.) a number of statistics can be requested. Those used for each partitioning in this program were the means and standard deviations for each variable and the matrix of simple correlations between all variables.

In actual practice, only the descriptive statistics and the zero-order correlations were used in the analysis.

Tests of significance of the correlation coefficients from zero were the usual ones.

Hypotheses

Student Sample

H-1: There will be a positive relationship between the number of courses taken and salary earned.

H-2: There will be a positive relationship between the number of courses taken and change orientation.

H-3: There will be a positive relationship between the number of courses taken and the amount of education.

H-4: There will be a negative relationship between change orientation and age; the older a person, the less likely he is to accept change.

H-5: There will be a positive relationship between change orientation and the amount of education.

H-6: There will be a positive relationship between change orientation and salary; the higher the salary, the more change oriented.

H-7: Those who score high on institutional satisfaction will score high on change orientation.

H-8: Those who score high on institutional satisfaction will receive higher salaries.

Teacher Sample

H-9: There will be a positive relationship between change orientation and age.

H-10: There will be a positive relationship between change orientation and amount of education.

H-11: There will be a positive relationship between change orientation and institutional satisfaction.

H-12: There will be a positive relationship between change orientation and salary.

H-13: There will be a negative relationship between institutional satisfaction and salary.

Management Sample

H-14: There will be a positive relationship between number of courses taken and company attitude on paying all of the tuition.

H-15: Satisfaction with administrative policies of the program will be related to the number of courses taken by employees.

H-16: Courses taken by employees will be viewed as beneficial to the company.

H-17: The present administration policies of the program will be approved by management.

H-18: Management will desire more courses pertaining to upper management levels.

H-19: Management will desire only company employees to participate in the IMTP.

CHAPTER IV

RESULTS OF STUDY

The results of the study are presented in a series
of tables with a narrative description and analysis. A
final chapter of the thesis will present an overall sum-
mary of the results.

Descriptive Analysis of Data

Sample

Table 4.1 depicts the sample of companies, students,
and teachers used in the study. The table indicates that
only 20 of 64 companies responded to the research investi-
gation; 330 students from a potential of 1,315; and only
29 teachers from a possible list of 91. This means that
the results of the study are based on a sample of 30 per
cent of the companies, 25 per cent of the students, and
30 per cent of the teachers.

Examination of Tables 4.2 and 4.3 also indicates
that the sample is not truly representative of the total
group. The teachers do not represent the total range of
subjects taught nor do the students represent all the
companies. This concurs with Wilson's (January, 1966)
survey as reported in the Training and Development Journal,

In reviewing the original group, it was noted that
the great majority of those not replying were the
smaller companies. In general the rule of affluence
applies. The IMTP is serving best the larger com-
panies. The smaller companies had few students,
thus likely also accounting for the small per cent
of questionnaire returns from the smaller companies.

This issue will be discussed again in the summary
chapter.

TABLE 4.1.--Company, student, and teacher samples used in
study.

Sample	Total Possible	Q'aires Distri-buted	Q'aires Returned			Usable Q'aires		
			M	F	T[1]	M	F	T
Companies	64	64	20	1	21	19	1	20
Students	1,715	1,315	311	11	330	311	11	330
Teachers	91	91	29	1	30	28	1	29

[1]Eight students did not indicate sex, thus totals
do not always agree.

Age.--Twenty-seven of the 29 teachers reported their

age. The range was from 32 to 66 with no concentration at

any one age. Of the students, 325 reported their age with

a range from 21 to 64. Most of the students were between

the ages of 28 and 51; only 18 were younger than 28 and

only 39 were over 51. Age was not requested from the

management.

Education-Amount.--Table G.4 reveals a wide range of

previous educational attainment for the students with 20

per cent having some type of university degree and 60 per

cent having at least some training after high school and

38 per cent having some college.

TABLE 4.2.—Participating companies in IMTP and number of students from each.

Co. No.	Company Name	1956	1957-1959	1960-1965
01	Auto Specialties Mfg. Co.	29	25	31
02	Appliance Buyers Credit Corp.	0	0	2
03	Bendix Corporation	41	36	99
04	Benton Harbor Malleable Indust.	10	0	41
05	Berrien Co. Highway Commission	1	0	1
06	Canteen Company of S. Michigan	0	0	6
07	Casting Service Corporation	0	0	2
08	City of Benton Harbor	1	0	7
09	Clark Equipment Company	49	33	146
10	Covel Manufacturing Co.	1	6	10
11	Dawn Home Canning	4	0	1
12	Dotmar Industries	0	0	1
13	Electro Voice Corporation	9	0	2
14	Engineering Works (Benton Harbor)	3	9	4
15	Gast Manufacturing Company	7	8	26
16	Heath Company	6	26	47
17	Hughes Plastics	0	7	6
18	Hydraulics	0	0	1
19	Indiana & Michigan Electric Co.	4	2	10
20	Industrial Rubber Goods	3	0	9
21	Jessup Wood Products	1	0	2
22	Kawneer Company (Aircraft Div.)	1	0	1
23	Kaywood Corporation	0	4	7
24	Laboratory Equipment Company	0	0	18
25	Martin Fabrication of Steel Supply	0	0	2
26	Michigan Fruit Canners	10	15	11
27	Michigan Tube Company	0	0	11
28	Modar Incorporated	1	3	6
29	Modern Light Metal Inc.	0	0	1
30	Modern Plastics	9	15	54
31	Muellen Container Company	1	0	9
32	New Products Corporation	1	0	3
33	Morton Door Closer Company		6	1
34	Nowlen Lumber Company		0	1
35	Paramount Die Casting Company	3	16	10
36	Peer Incorporated		3	1
37	Peer Div. of Landis Machine Co.		0	7
38	Pemco Product Engineering Co.	34	0	1
39	Produce Engineering & Mfg. Co.		8	5
40	F. P. Roeback Company		0	2
41	Saranac Machine Company	12	2	13
42	Simonize Company	5	0	6
43	Sodus Fruit Exchange		1	2
44	Superior Steel & Malleable Casting	10	7	23

TABLE 4.2.--Continued.

Co. No.	Company Name	1956	1957-1959	1960-1965
45	Thersin Klemans Company		0	3
46	Twin Cities Container Corp.	2	3	24
47	Tyler Refrigeration Corp.	1	11	1
48	Union Bay Camp Paper Corp.		0	1
49	Veloco Machine	4	0	4
50	Voice of Music Corporation	23	49	31
51	Watervliet Paper Company		0	3
52	Winkel Machine	1	7	9
53	Whirlpool Corp. (St. Joseph Div.)	27	36	73
54	Whirlpool Seeger Corporation	83	7	13
55	Whirlpool Corporation		0	29
56	Whirlpool Corp. (Laundry Group)		0	6
57	Whirlpool Corp. (Research & Devel.)		0	6
58	Michigan Bell Telephone		0	2
59	National Water Lift Company		0	4
60	Bohn Aluminum & Brass Co.	0	0	9
61	Okade Controls, Inc.			
62	Produce Creamery (Pet)	1	1	1
63	Jewel Tea Company		0	1
64	Kat, Inc.			

Total participants in program	1,715
Students enrolled between 1957-1959	355
Students enrolled between 1960-1965	960
Students enrolled in 1966 only	395

TABLE 4.3.--Company classifications according to product and/or manufacturing process.

Code No.	
01	Foundry Industry
02	Non Durable Manufacturing (soft goods)
03	Heavy Equipment Industry
04	Construction & Building Industry
05	Machine Tool Manufacturing
06	Durable Manufacturing (component parts)
07	Electronics Industry
08	Appliances (home)
09	Plastics Industry
10	Packaging Industry (containers, etc.)
11	Utilities (public)
12	Wholesale Merchandisers (all products)

The teachers educational attainment is higher as would be expected. Seventy-two per cent had some training after high school but less had actual university degrees than did the students. An inference from this (coupled with prior knowledge of the program) is that the teachers likely are not "academician-as-such" but come from the industry/company world-of-work. Amount of education was not requested from the management representatives.

Income.--Three hundred twenty-three of the 330 students reported their income and 27 of the 29 teachers. Forty-one per cent of the students reported incomes above $10,000, only 10 per cent in the $6-7,000 bracket, and 76 per cent reported incomes above $8,000. The salaries of the teachers were much higher--remember they also come from industry. Eighty-nine per cent reported incomes

above $10,000 (versus 41 per cent for students). Thirty-nine per cent of the incomes were above $15,000 and one about $25,000. No students reported incomes above the $10-11,000 bracket. Salaries were not requested of the management representatives.

Marital status.--Table G.6 indicates that 94 per cent of the students and 90 per cent of the teachers were married. No teachers were single and only 4 per cent of the students.

Where reared.--There was no real difference between teachers and students in regard to early youth community (Table G.4). They split somewhat evenly between country, country town, and city with some less concentration in city suburb areas.

Recent residence.--Most of the students and teachers live in the city and/or suburbs (Table G.4) with a higher concentration of teachers doing so. The teacher also has a higher income!

Course Benefit

Table G.1 (all "G" Tables are in Appendix G) reports the summated reactions to individual course benefit and Table G.2 reports the global reaction to course benefit. Table G.1 indicates that teachers felt the subject matter was better developed than did the students: 72 per cent versus 61 per cent for teachers and students respectively.

The overall analysis of Table G.1 also shows that teachers perceived themselves as more effective than did the students.

The evaluation by students and teachers of the benefit of the courses (Table G.1) is not clearcut. Fifty-two per cent of the students and 37 per cent of the teachers perceived the courses as "somewhat" helpful but 44 per cent of the students versus 63 per cent of the teachers rated the courses as "very" helpful. In general the teachers saw the courses as more helpful than did the students.

Reasons Course Taken

Table G.2 indicates that 42 per cent of the students took the courses because they saw them as helpful to their job whereas 60 per cent of the management thought that students took courses for this reason! Seventeen per cent of the students took the courses for advancement purposes whereas management saw only 10 per cent doing so for this reason. The inference is that students are advancement oriented and that management is oriented toward training to improve performance on the present job!

Course Content Level

Teachers felt (Table G.3) that the course content level was adequate: 48 per cent said fair and 41 per cent said good whereas the students (Table G.5) rated the course content development level as 45 per cent fair and 40 per

cent good. The teachers were somewhat more positive than the students about course content.

Reactions to Instruction

Teacher effectiveness

Five per cent of the students rated teacher effectiveness as poor, 61 per cent rated it good, and 21 per cent rated it very good on an overall basis (Table G.5). When the courses were rated on an individual basis, and teacher effectiveness was rated by both students and teachers (Table G.1) the ratings were fairly close.

Reasons for Teaching

Seventy-six per cent of the teachers stated they did so because they enjoyed teaching but 14 per cent felt "pressured" to do so (Table G.3). None indicated they did so for the extra money.

Classroom Facilities

Only 15 per cent of the students and management felt that a central classroom facility (Table G.2) was desirable while 28 per cent of the teachers felt so. The teachers were least satisfied with present facilities (45 per cent), the students next (at 47 per cent), and management was the most satisfied (63 per cent). Both students and teachers felt industrial facilities should be used more and management felt least so. Perhaps this is because management

"inherits" the job of providing the facilities whereas the students and teachers see the benefit of instruction in the industrial setting.

Class Time

Responses to this issue varied considerably. However, analysis of Table G.2 reveals that when time-and-day are combined more than half of all three groups are satisfied. Only a small per cent felt that classes had been at the wrong time and day.

Tuition and Fees

Table G.2 indicates that the student and management perceptions of "who-paid-the-bill" were very close (64 and 65 per cent respectively) while only 44 per cent of the teachers felt that all of the tuition and fees had been paid by the company. The data clearly indicates that 50 per cent or more of the cost was paid by the company and that likely in 60 per cent-plus-cases all of it was so paid.

It is interesting to note that, while management reported it had paid all of the fees in 65 per cent of the cases, only 45 per cent felt that management ought to pay all of it (Table G.2). Approximately 5 to 7 per cent of the students, managers, and teachers felt that the students should pay something, but less than 50 per cent.

Night Shift Courses

Over 65 per cent of the students and teachers felt classes should be provided for night shift employees while only 45 per cent of management felt so (Table G.2).

Reactions to Administration of IMTP

Administration of IMTP

A large percentage (S-75, M-95, T-83) of the students, managers, and teachers felt that the administrative arrangement of the IMTP should be continued as it presently is (Table G.2). Only 4 per cent of the students and teachers felt it should be college operated and none of the management felt so.

Type of Training Needed

Analysis of Table G.2 reveals that students feel more training is needed for all levels of management while teachers feel that pre-supervisory and technical training is also highly needed. When it is remembered that the teachers come from industry, and tend to come from upper levels according to their incomes, their perceptions take on added significance. The students, who are mostly foremen and lower management, may see the needs in their own area while the teachers (who are also upper management) see additional and/or different needs.

Analysis of Table G.4 further substantiates the data from Table G.2. In Table G.4, foremen and middle management

training and perceived by management as most needed, but pre-supervisory technical and engineering also receive a high rating.

Admission policies

The data (Table G.2) reflect an interesting picture. Students feel most liberal as to whom should be admitted to the courses, especially with regard to company personnel, whereas managers and especially teachers are opposed to admission being open to "anyone" in the company. Again, it is to be remembered that the teachers represent upper management to some extent and thus likely reflect the management position that "it" should control admission to "its" program and especially if admission is to be open to non-management (i.e., union) personnel.

College Credit

The data of Table G.2 reveal rather close agreement between students, management, and teachers on this issue. Forty per cent or more feel that college credit should not be given for IMTP courses. Further analysis of the data shows that 25 per cent feel credit should be optional and that the option should be the student's. These two alternatives combined indicate that 70 to 80 per cent feel that credit should not be given or that at the most, it should be optional and at the student's discretion.

<u>Reactions to Skill Needs</u>
<u>by Type of Management</u>

<u>First Line Production</u>
<u>Supervisors</u>

There is fair agreement on priority[1] level of need between supervisors and management: working with production, with equipment, and with personnel and human relations are all ranked high and approximately the same (Table G.7 and G.9). The supervisors' rating of themselves in Table G.8 and management rating of them in Table G.10 is also close: 32 per cent of the supervisors rate themselves as average and 31 per cent of the managers rate them so. Detailed analysis of Tables G.7 and G.10 reveal many other interesting relationships.

<u>Office Supervisors</u>

The office supervisors saw the following as being most important: communications, human relations, working with others, and working with reports (Table G.11). They also saw themselves as being fairly "good-to-excellent" in these areas (Table G.12). Management agreed on the importance of these areas for office supervisors but saw accounting and general business as also being quite important Tables G.13 and G.14).

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[1]For purposes of analysis the ratings of "good" and "excellent" are combined in the students' evaluations of themselves. Examination of the data indicates that students in essence were using the rating of "good" as the top one and avoided the use of "excellent." Perhaps the word "excellent" implied a kind of "egotism" to the students.

General Foremen

The foremen saw the following as most important: working with equipment, with production, with other personnel, and human relations (Table G.15). They saw themselves as being somewhat deficient in the human relations aspect (Table G.16). Management perceived the importance of the same two basic factors: a personnel factor and a technical-skill factor, and tended to place more importance on the latter than did the foremen themselves (Table G.17). Management saw the foremen as being deficient in both factors but being weaker in the personnel factor (Table G.18).

Superintendents

The superintendents saw the following as most important: human relations, communications, working with other personnel, and with reports (Table G.19). They also saw themselves as being weak in all these areas (Table G.20). Management agrees on the importance of the "communications-human relations" factors but also sees working with production as being important to the job of the superintendent (Table G.21). Table G.22 reveals an interesting finding: management sees the superintendent as being quite "good" in working with production but needing considerable help in the "communications-human relations" factor.

Division or Department Heads

The profile of skill needs for the division heads is very similar to superintendents--a "communication-human relation" factor (Tables G.23 and G.24). They saw themselves being weak in this area as did the superintendents. Management perceived the skill needs and present competencies of division heads approximately as they did superintendents: they saw the need being greatest in the communications, human relations area with the division heads being stronger in working with reports than in general communications (Table G.25). Management also saw importance in "working with production" as part of the job of a division head but also saw him as being good at this (Table G.26).

Engineering Group
Supervisors

The profile for this group is interesting. The engineering supervisors see the following as most important: working with drawings and reports, with mathematics, with other personnel and human relations (Table G.27). They also see themselves as weak in all these areas but especially in mathematics (Table G.28)! Management sees the job as more technical than do the engineering supervisors themselves (Table G.29) but they also see the engineering supervisors as being more competent in the math-technical area than do the engineers themselves (Table G.30).

Vice-Presidents

The vice-presidents saw the following as most important: working with reports, other personnel, communications, human relations, and general business (Table G.31). This is largely the same as for superintendents and division heads but adds accounting-and-general business and the factor is regarded as even more important by vice-presidents. They see themselves as weak in all these areas but especially so in working with drawings and reports. Perhaps the increasing complexity of the technical aspects of reports in modern science and industrial technology has "caught up" with the vice-president.

Presidents

The profile for presidents is like that of vice-presidents but even more so! The presidents see communications, human relations, and accounting-and-general business as being the overwhelming skill needs of their job (Table G.36). Interestingly enough, they see some need for skill in the science technical area and in working with production. However, they see themselves as being fairly good at this but being very weak in the accounting-and-general business area and needing some help in the "communications-human relations" area (Table G.37).

Staff Personnel

Generalizations in this area are difficult because the profile is based on a composite reaction to a number

of positions like engineering, sales, accounting, personnel, etc. Inferences from the data should be interpreted accordingly.

Staff personnel see the following as important: working with production, with drawings and reports, communications, and human relations (Table G.40). This is a technical-communications factor. They see themselves as being adequate in the technical aspect of the factor but being quite weak in the communication factor (Table G.41).

Management sees the skills needed by staff personnel a little differently. They see more importance in the communications factor and add the accounting-and-general business dimension (Table G.42). They also see staff personnel as being weak in all these areas but especially in the general business aspect.

If the staff personnel are "as good" as they feel they are in the technical area and as weak in the communication area, this may account for the reactions of management. They see the weakness and respond to it.

The addition by management of the accounting-and-general business dimension is also interesting. This may be based on the conscious or unconscious realization that future vice-presidents and presidents come from this group and that they are weak in this area. Examination of the profile of presidents and vice-presidents indicates the importance attached to skill in the general business area.

A second inference can also be entertained. Management may be responding to the oft-quoted statement that many upper level staff persons do not understand the goals and purposes of the organization nor the principles of business management in the American free enterprise system. Perhaps they feel that staff personnel are only interested in pay-day rather than also being interested in the advancement of the company.

Reaction of Students and Teachers to Selected Issues

Aid to Education

Local Aid.--The teachers and students disagree more at the extreme positions (Table G.6). Sixty-five per cent of teachers strongly agree on raising local taxes for education and only 35 per cent of the students. Since the teachers, who are also upper level management, are likely the civic leaders in the community, this finding can be regarded as both good and bad. It is "good" that they are for education but it also shows them the lack of communication and/or sales job they have done in the community.

Federal Aid.--Analysis of this question in conjunction with the above is interesting if not paradoxical. Whereas only three per cent of teachers are "strongly" against raising local taxes for education, 41 per cent are against it at the federal level (Table G.6). It is also interesting that approximately the same per cent of

teachers "slightly agree" on local and federal aid to education; 24 and 28 per cent respectively. It is also "somewhat surprising" that 10 to 14 per cent of businessmen strongly support federal aid to education.

Change Orientation

Health (fluoridation).--Most of the respondents were in favor of fluoridation; 67 per cent of the students and 79 per cent of the teachers (Table G.6).

Child-rearing practices.--Thirty per cent of students and 27 per cent of teachers were to some extent against trying out new methods in child-rearing and only 16 per cent of students and 20 per cent of teachers were strongly for it (Table G.6).

Birth control.--Eighty-six per cent of students and 90 per cent of teachers were to some extent in favor of birth control and only 3 per cent of the students and none of the teachers felt it was always wrong (Table G.6).

Automation.--Ninety-four per cent of the students and 97 per cent of the teachers were to some extent for automation (Table G.6).

Political leadership change.--An interesting confrontation! Almost the same per cent strongly pro-and-con. Twenty-seven per cent of the students were strongly for-and-against regular change of political leaders and 21 per cent of the teachers strongly for-and-against it (Table G.6).

Self-change.--Fifty-five per cent of the students
and only 28 per cent of the teachers find it difficult
to "change their ways" (Table G.6). The teachers, who are
also upper-level managers, are more change-oriented, but
perhaps industry needs to consider that half of their
management personnel report they are set-in-their-ways.

Rule adherence.--Twenty-five per cent of the students
and 17 per cent of the teachers report liking to "follow
rules" rather than doing things on their own (Table G.6).
Only 31 per cent of teachers and 24 per cent of students
strongly dislike following rules. One can speculate
whether these are the "dissenters or the innovators."

Job regularity.--Twenty-three per cent of students
and 7 per cent of teachers like a job with regularity and/
or routine. Fifty-eight per cent of teachers and 45 per
cent of students strongly dislike such a job (Table G.6).

Planning.--Seventy-two per cent of students and 79
per cent of teachers believe strongly that planning is
beneficial (Table G.6); only 8 per cent disbelieve to some
extent in the benefit of planning, and none of the teachers
believe so. The inference is that the teachers (upper
level managers) are more planning-oriented and believe more
in themselves.

Residence change.--Fifty-three per cent of the stu-
dents and 48 per cent of the teachers have not changed resi-
dency community in the last ten years. None of the teachers

have moved more than three times during the last ten years, and only 4 per cent of the students have done so (Table G.6).

Job change.--Sixty-six per cent of the students and 69 per cent of the teachers have not changed jobs during ten years. Only 3 (10 per cent) of the teachers have changed jobs as much as three times during the last ten years, whereas 50 (15 per cent) of the students have done so (Table G.6).

The last two questions indicate a very stable residence-job community.

Institutional Satisfaction Reactions

Schools

Elementary schools.--Eighty-three per cent of the students and 83 per cent of the teachers feel the elementary school is doing a good-to-excellent job. Only 2 per cent of the students feel it is doing a poor job, and none of the teachers feel so (Table G.6).

Secondary schools.--Seventy-six per cent of the students and 80 per cent of the teachers feel the secondary school is doing a good-to-excellent job and only 4 per cent of the students feel it is doing a poor job (Table G.6).

Universities.--Seventy-nine per cent of the students and 66 per cent of the teachers feel the universities are doing a good-to-excellent job and only 2 per cent of the students feel they are doing a poor job (Table G.6).

Businessmen

Sixty-four per cent of the students and 48 per cent
of the teachers feel that businessmen are doing a good-
to-excellent job (Table G.6). It is interesting to note
that the teachers (upper level management) are least satis-
fied with businessmen. Is this reaction because they are
in-the-know or does "familiarity breed contempt?"

Labor

Forty per cent of the students and 41 per cent of
the teachers felt that labor was doing a good-to-excellent
job in the community, whereas 12 per cent of students and
21 per cent of teachers felt it was doing a poor job
(Table G.6). The above concluding comment under business-
men applies equally here. The higher the management
level the more anti-labor one becomes.

Local Government

Forty-five per cent of students and 41 per cent of
teachers felt that local government was doing a good-to-
excellent job in the community while 6 per cent of students
and 3 per cent of teachers felt it was doing poorly
(Table G.6).

Analysis of the local and national government re-
sponses indicates that about 50 per cent of managers are
fairly satisfied with local government but that 25 per
cent of management felt that the national government was

doing a poor job. Managers also felt more strongly against the national government the higher up the management level they went.

Health Services

Seventy per cent of students and 76 per cent of teachers felt that health services were doing a good-to-excellent job while 4 per cent of students feel the services are poor (Table G.6).

One can speculate on the higher socio-economic level of the teachers (upper level managers) and their greater satisfaction with the services, i.e., they can "pay" for better services and are thus more satisfied.

Churches

Seventy-two per cent of students and 76 per cent of teachers felt that churches were doing a good-to-excellent job while only 4 per cent of the students felt they were doing a poor job and none of the teachers felt so (Table G.6).

One can speculate, as with health services, why higher level management (teachers) are more satisfied with churches than are the students. Is higher level management more active, more informed, et cetera, or are they more subject to "approval pressure" in socially sensitive areas such as religion? See discussion under religion-adherence, below.

Personal-Social Orientation

Religion

Religion-affiliation.--Seventy-seven per cent of the students and 75 per cent of the teachers were Protestant while 19 per cent of the students and 17 per cent of the teachers were Catholic (Table G.6).

Religion-importance.--Approximately 50 per cent of the students and teachers said religion was "fairly" important in their daily life, about 25 per cent said it was very important, while 15 to 20 per cent said it was not very important. Only 6 students (1.8 per cent) said they had no religion (Table G.6).

Religion-adherence.--Approximately 30 per cent of the students and teachers said they always kept the rules and regulations of their religion, 40 per cent said they usually did, 13 per cent stated they did some of the time, while 5 per cent of the students versus 10 per cent of the teachers said they seldom kept the rules (Table G.6).

The fact that approximately twice as many teachers (upper level managers) do not observe the rules and regulations of their religion adds further light to the discussion of the teachers' position on their satisfaction with the extent to which the church is doing a good job in the community.

Personalism

Job personalism.--Most of the managers did not work a high percentage of the time with people whom they regarded as close friends; 82 per cent of the students' time and 87 per cent of the teachers' time was so spent (Table G.6).

Personalism-importance.--Forty-five per cent of the students and 48 per cent of the teachers did not feel it very important to work with close friends while 13 per cent of students and 17 per cent of teachers did feel it very important to work with people to whom they felt close (Table G.6).

Happiness prerequisites.--Sixty-eight per cent of the students and 59 per cent of the teachers indicated that future happiness was most related to job-and-health (Table G.6). The teachers (upper level managers) tended to be somewhat more oriented outside themselves (job and health) than the students. Because of their positions, one can speculate they are more involved in community affairs than the students, who are also management--but lower level.

Happiness possibilities.--Forty-two per cent of the students and 66 per cent of the teachers believed that "job and health" were the areas in which they would find future happiness (Table G.6). None of the teachers saw more money as being important and only 2 per cent of the students did so.

Further analysis of Table G.6 indicates that the
teachers see future happiness from their present job po-
sition (granting good health) whereas the students (lower
level management--who have not yet arrived) are less sure
and see possibilities in other areas.

Results of Hypotheses Testing

Student Sample

H-1: The data of Table 4.4 indicates that salary
and number of IMTP courses taken are related at the .05
level. H-1 is accepted.

H-2: The data of Table 4.4 indicates there is no
relation between the number of courses taken and change
orientation. H-2 is rejected.

H-3: The data of Table 4.4 indicates that number
of IMTP courses taken and amount of education are related
at the .01 level. H-3 is accepted.

H-4: The data of Table 4.4 indicates there is no
relation between change orientation and age. H-4 is
rejected.

H-5: The data of Table 4.4 indicates a positive re-
lationship between change orientation and the amount of
education at the .05 level. H-5 is accepted.

H-6: The data of Table 4.4 indicates a positive re-
lationship between change orientation and salary at the
.05 level. H-6 is accepted.

TABLE 4.4.--Sample size and correlations between selected
variables for the IMTP student sample.

Variable	1 Course	2 Salary	3 Change	4 Ed. Amt.	5 Age	6 Salary	7 Inst. Satis.
1-Course							
2-Salary	12(322)*						
3-Change	00(330)						
4-Ed. amt.	-21(320)**	13(329)*					
5-Age		-02(324)					
6-Salary		13(322)*					
7-Inst. Satis.		06(330)		01(322)			

*P < .05.

**P < .01.

H-7: The data of Table 4.4 indicates there is no relation between high scores on institutional satisfaction and high scores on change orientation. H-7 is rejected.

H-8: The data of Table 4.4 indicates there is no relation between high scores on institutional satisfaction and high salaries. H-8 is rejected.

Teacher Sample

H-9: The data of Table 4.5 indicates a positive relationship between change orientation and age at the .05 level. H-9 is accepted.

TABLE 4.5.—Sample size and correlations between selected variables for the IMTP teacher sample.

Variable	1 Age	2 Educ. Amount	3 Inst. Satis.	4 Salary	5 Salary
1-Change	35(27)*				
2-Change		08(29)n.s.			
3-Change			05(29)n.s.		
4-Change				-10(27)n.s.	
5-Inst. Satis.					-04(27)n.s.

*P = .05

n.s. - no significance

H-10: The data of Table 4.5 indicates there is no relation between change orientation and amount of education. H-10 is rejected.

H-11: The data of Table 4.5 indicates there is no relation between change orientation and institutional satisfaction. H-11 is rejected.

H-12: The data of Table 4.5 indicates there is no relation between change orientation and salary. H-12 is rejected.

H-13: The data of Table 4.5 indicates there is no relation between institutional satisfaction and salary. H-13 is rejected.

Management Sample

H-14:   The data of Table 4.6 indicates a relationship
between number of IMTP courses taken and company attitude
on paying all of the tuition at the .005 level. H-14 is
accepted.

H-15:   The data of Table 4.6 indicates there is no
relation between administration policies of the IMTP and
the number of courses taken by employees. H-15 is
rejected.

H-16:   The frequency data indicates that the compa-
nies view courses taken as somewhat helpful (40 per cent),
very helpful (55 per cent). H-16 is accepted.

H-17:   The frequency data indicates the present
policies of administration of the IMTP are overwhelmingly
acceptable (95 per cent). H-17 is accepted.

H-18:   The frequency data indicates management does
not desire more upper level management courses. H-18 is
rejected.

H-19:   The frequency data indicates that management
is evenly divided with respect to who should be allowed
to take courses in the IMTP but slightly favoring responses
contrary to H-19. H-19 is rejected.

TABLE 4.6.--Sample size and correlation between selected variables for the IMTP manager sample.

Variable	Courses Taken	Student Expenses	Student Tuition	Classroom Facility	Adminis. IMTP	Course Admit.	College Credit
1-Courses Taken							
2-Student Expenses	.55(20)**						
3-Student Tuition		.84(20)**					
4-Classroom Facil.			.22(19)n.s.				
5-Adminis. IMTP							
6-Course Admit.							
7-College Credit						.40(19)* n.s.	

*P < .05.

**P < .005.

n.s. = No significance.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This concluding chapter will present a resume of the findings with implications for the future of the IMTP.

Managers of the Study

Three hundred thirty students from 20 companies and 29 teachers (most of whom were also managers) participated in the study. Most of the managers were between the ages of 28 and 51, had at least some additional education after high school, and earned income between $8,000 and $11,000.

The teachers (upper level managers) had more education and considerably high incomes; 39 per cent with incomes above $15,000. Most of the participants were married and had not changed jobs or residence community in the last ten years.

The data revealed a very stable vocational community with low mobility. As will be seen later, there is also evidence of "being in a rut."

Reactions to IMTP Course Offerings

The students and teachers generally were quite positive about the benefit of the past course offerings of

IMTP with the teachers being a little over-optimistic.
Courses were taken for increased performance on the job
but students were more concerned about advancement po-
tentials of the courses than was management. All parti-
cipants saw the course content level as being adequate.

Most of the reactions to teacher effectiveness,
classroom facilities, class time, tuition and fees were
positive with teachers again being a little more opti-
mistic than the students.

Reaction to Administration of IMTP

A rather overwhelming number of the participants
felt the program should continue to be administered as
in the past--by a representative group from industry and
Lake Michigan College. There is considerable feeling for
a more liberal admission policy as to whom should be al-
lowed to take courses and a fairly strong feeling that
college credit should either not be given for the courses
or at best that "taking-for-credit" should be the option
of the student.

The teachers and students both felt that while man-
agement training should continue to be the main purpose
of the IMTP, pre-supervisory and technical training were
also needed.

Skill Needs by Type
of Management

Analysis of the data contained in Table G.7 and G.12

reveal some interesting patterns. The main areas of weak-

ness by types of management were:

1. First line production supervisors
    (a) communications, (b) human relations

2. Office supervisors
    (a) communications, (b) working with reports,
    (c) accounting-and-general business

3. General foremen
    (a) human relations, (b) technical-skill factors

4. Superintendents
    (a) communications, (b) human relations, (c)
    working with reports

5. Division or department heads
    (a) communications, (b) human relations, (c)
    working with reports

6. Engineering group supervisors
    (a) working with drawings and reports, (b)
    mathematics-science factor, (c) human relations

7. Vice-presidents
    (a) communications, (b) working with reports,
    (c) human relations, (d) accounting-and-general
    business

8. Presidents
    (a) communications, (b) human relations, (c)
    accounting-and-general business, (c) science-
    technical factor

9. Staff-personnal
    (a) working with production, (b) working with
    drawings and reports, (c) communications, (d)
    accounting-and-general business

Reactions to Selected Issues

The participants were generally in favor of increased

financial support for local aid to education but against

increased federal support. However, 10 to 14 per cent

were "strongly for" increased federal support.

Analysis of change orientation on several variables

dealing with health, self-change, and rule adherence leads

to a tentative hypothesis. About 25 per cent of the man-

agers in the study prefer to merely follow rules and custom

and have little motivation for change or innovation. What

effect does this have on company progress?

The managers generally felt that schools, univer-

sities, businessmen, local government, health services, and

churches were doing a good job in the community while they

felt that labor and national government were doing a poor

job.

Personal Characteristics

The majority saw religion as being important in

their lives and were fairly conscientious about observing

the "rules and regulations" of their religion. They saw

happiness coming from job-and-health.

Results of Hypothesis Testing

Student Sample

Salary, number of courses taken, and change orienta-

tion were significantly related. One can postulate that

those "more open to change" take more courses and then

acquire higher salaries.

Teacher Sample

Openness to change and age were positively related for teachers but not for students, i.e., the latter are managers. This implies that teachers stay "open to change" as they get older but that managers do not.

Management Sample

The more experience the companies have with the IMTP the more they approve its policies of tuition and general administration.

Implications

1. There is considerable support for maintaining the present administrative arrangements for the IMTP.

2. The teaching staff could be more "tuned in" to the aspirations of the students.

3. Management needs to recognize the "desire for advancement" motive more than they do.

4. The IMTP does not serve the smaller companies very well. How they can become more involved should be researched.

5. Training needs to be studied from two aspects: level of management and type of content.

    (a) In general, there is a communication-human relations vs. a technical or semi-technical content dimension evident from the perceived needs of students, teachers, and

management. The communication-human
relations need seems to be more seriously
felt.

(b) High level management, in addition to the
communication-human relations factor, sees
itself in need of training in accounting-
and-general business and sees other levels
of management needing training in company
objectives and/or objectives and procedures
of the American free enterprise system.

Recommendations

From the review of literature it was found that the
IMTP is consistent with current concepts in certain areas
and should continue to view these as healthy.

1. Meetings off-plant promote better communications.

2. Designing new courses to fit specific needs.

3. Use non-professional teachers for instructors
in certain skilled areas.

However, this writer feels there are some areas where
much could be done to improve the IMTP. The results of the
study bear this out particularly in the area of communica-
tions and human relations. The greatest single deficiency
of the IMTP is in the area of self-development of the indi-
vidual. Bennett (1956) states the objective of a manage-
ment development program "is to imbue the manager with a
professional concept of his job and this helps him to

develop and upgrade his professional proficiency." In
addition, the American Management Association (1955)
emphasizes that it must be noted that no matter how suc-
cessful a program is, the effect it may have on the growth
of the individual as a manager and the organization is
dependent upon the reconciliation of the concepts learned
with the discovered inadequacies of the individual.

In Retrospect

While the following observations do not necessarily
flow from the hypotheses of the study they reflect my per-
sonal observations and/or intuitions and therefore will be
stated in the first person.

1. I feel that the goals and objectives in manage-
ment training should involve all people in the company at
all levels.

2. I feel the personal goals of the individual
manager should be considered as well as the company ob-
jectives. Personal goal achievement will produce moti-
vations to achieve management goals.

3. I feel that more emphasis needs to be given to
courses in communications and self-development.

4. I feel that American management is not as "open
to change" as it needs to be. With increasing emphasis
on world markets, American industry needs to restructure
their management training activites to include more op-
portunities to induce greater innovativeness among their
executives.

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APPENDICES

APPENDIX A

LETTERS AND FORMS

THE *Bendix* CORPORATION

March 14, 1966

Mr. John V. Polomsky
224 College of Engineering
Michigan State University
East Lansing, Michigan

Dear John:

I talked with Russell Adams, who used to be the Twin Cities
Vocational Director for the Twin Cities, about the origin of our
training program.

Sid Mitchell, former Superintendent of Benton Harbor School
System -- which then included the Community College -- now retired,
and Russ Adams held some informal conversations with various industrial
people with a view to doing something in management training. Mitchell
and Adams then, through the Department of Education, Michigan State
University, obtained the services of Larry Borosage who apparently had
just completed his Doctors Thesis in the area of Management Training.

The next step was an informal luncheon meeting at which there
were about 50 industrial people in attendance to test community re-
action and interest in such a program. There was an interest and a
steering committee was then established.
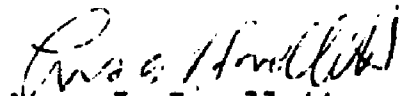
The steering committee recommended potential local instructors.

The next step was for Borosage to put on two training sessions for
trainers.

Outlines of courses were then prepared by such people as Adams,
Lovellette, and others and courses started with local instructors.

I believe this is a reasonably accurate outline about the con-
ception of the program. At least it is as Adams and I remembered it.

Sincerely,

Anson L. Lovellette
Director of Industrial Relations

ALL/hp

May 13, 1966

Mr. John V. Polomsky
224 College of Engineering
Michigan State University
East Lansing, Michigan

Dear Mr. Polomsky:

Your letter of April 27 addressed to Mr. Anson L. Lovellette
of Bendix Corporation has been referred to me for reply.

The attached letter was sent to all the participating companies
and it is hoped that your response has now improved.

Sincerely,

Theodore W. Miller, Director
Industrial Relations

TWM:ra

Attach.

Gentlemen:

In April, we sent you a number of questionnaires regarding the evaluation of our Industrial Management Training Program.

I would like to encourage you to remind your employees who were participants or instructors that their participation in this project is important to the continued success of our training program.

I understand also that the response from the company questionnaires is lagging behind the student response to this survey. May I encourage you to have someone in your organization complete the company questionnaire at your earliest convenience. If you have any questions, please call me.

We anticipate that this survey will enable us to better evaluate what has been done in the past, what the needs are for the future, and to present a better program to local companies and to local industrial employees.

Your cooperation is very much appreciated and needed.

Sincerely,

Ted W. Miller

Theodore W. Miller, Chairman
Steering Committee
Industrial Management Training Program

APPENDIX B

QUESTIONNAIRE TEACHER

Company_____   Male_____

Firm (or)_____   Female_____

School_____   Date_____

Management Training and Education Survey

Teacher Form

This questionnaire has two parts to it:

1. The <u>first part</u> deals with any experience you have had with the Industrial Management Training Program as well as your opinion as to its future.

2. The <u>second part</u> has to do with aspects of your background and how you feel about certain things.

For the purpose of this investigation, <u>the answers of all persons are important.</u> Since the <u>questionnaire is completely anonymous</u>, you may answer all questions freely, without any concern about being identified.

* * * * *

Remember, <u>no one</u> but the two research people at Michigan State University will see this data. It is very important that you be <u>completely open and frank</u> in all your answers.

APPENDIX B

QUESTIONNAIRE TEACHER

APPENDIX B

QUESTIONNAIRE TEACHER

Company_____   Male_____

Firm (or)_____   Female_____

School_____   Date_____

Management Training and Education Survey

Teacher Form

This questionnaire has two parts to it:

1. The <u>first part</u> deals with any experience you have had
   with the Industrial Management Training Program as
   well as your opinion as to its future.

2. The <u>second part</u> has to do with aspects of your background
   and how you feel about certain things.

For the purpose of this investigation, <u>the answers of all persons are</u>
<u>important.</u> Since the <u>questionnaire is completely anonymous,</u> you may
answer all questions freely, without any concern about being identified.

<p align="center">*   *   *   *   *</p>

Remember, <u>no one</u> but the two research people at Michigan State Universi-
ty will see this data. It is very important that you be <u>completely open and</u>
<u>frank</u> in all your answers.

Part I: <u>Industrial Management Training Program (IMTP)</u>

1. Please list below the <u>kind(s)</u> of experiences <u>you have had</u> with the IMTP.
   (Check more than one if appropriate.)

   ( ) I have been an instructor in the program.
   ( ) I have taken some of their courses.
   ( ) I have been a coordinator in the program.
   ( ) I have been responsible for placing people from my company or
       firm in the program.
   ( ) I have been on the administrative board of the program.

2. Listed below are all the courses that have been sponsored by the IMTP.

   a). In the <u>left</u> hand margin put an <u>X</u> before those you have taught or coordinated.

   b). In the <u>right</u> hand margin rate only those courses you have taught or worked
       with as a coordinator. Put an <u>X</u> in the proper column to indicate how you
       feel about the <u>subject matter</u> of the course, your <u>effectiveness</u> as a teacher,
       or coordinator, and the <u>benefit of the course to the persons job</u>.

(Check which you are/or have been) ( ) Teacher ( ) Coordinator ( ) Both	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
1. Introduction to IBM									
2. Intermediate IBM									
3. Basic Industrial Traffic Management									
4. Industrial Economics									
5. Factory Economics									
6. BI Economics									
7. Factory Economics for Supervisors									
8. Oral Communication									
9. Power of Small Group Discussions									
0. How to Speak Effectively									
1. Developmental Reading									
2. Effective Speaking for Foremen									
3. Labor Negotiations									
4. Management and Labor Relations									
5. Basic Industrial Purchasing									
6. Advanced Industrial Purchasing									
7. Basic Industrial Drafting									
8. Advanced Industrial Drafting									
9. Quality Control									

(Check which you are/or have been) ( ) Teacher ( ) Coordinator ( ) Both	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
)20. Foundry Technology (Survey Course for Foremen)									
)21. Practical Molding (Sand Control)									
)22. Core Sand Technology									
)23. Basic Elements of Foremanship									
)24. Foremen Training									
)25. Time Study for Foremen									
)26. Slide Rule for Foremen									
)27. Safety for Industrial Supervisors									
)28. Basic Elements of Supervision									
)29. Human Dynamics for Supervisory Personnel									
)30. Work Simplification									
)31. Basic Elements of Electricity DC									
)32. Basic Elements of Electricity									
)33. Electrical Code									
)34. Basic Elements of Electricity AC									
)35. Electrical Code (Refresher Course)									
)36. Refresher Engineering									
)37. Machine Tool Operation									
)38. Fluid Mechanics									
)39. Machine Tool Set-Up									
)40. Improving Machine Shop Techniques									
)41. Fluid Mechanics									
)42. Improving Machine Shop Inspection Techniques									
)43. Instructing the Worker on the Job.									
)44. Basic Elements of Hydraulics									
)45. Hydraulics Engineering									
)46. Hydraulics Components									
)47. Introduction to Hydraulics									
)48. Elements of Hydraulics (Second Phase)									
)49. H.O.B.S.O.									
)50. Basic Elements of Metallurgy									
)51. Die Design									
)52. Tool Design									

66

(Check which you are/or have been) ( ) Teacher ( ) Coordinator ( ) Both	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
)53. Human Relations Clinic									
)54. Conference Leader									
)55. Seminar in Personal Administration									
)56. Case Problems									
)57. Secretarial Development									
)58. Techniques of Supervision									
)59. Industrial Economics for Supervisors									
)60. Advanced Machine Tool Operation									
)61. Value Analysis									
)62. Foundry Molding									

3. On an overall average, how do you feel the students would have rated the courses you taught or coordinated at the end of the course.

( ) Not helpful to their job.
( ) Somewhat helpful to their job.
( ) Very helpful to their job.

4. In general how do you feel about the subject matter or content of the individual courses sponsored by the program.

( ) The content was not adequately developed.
( ) The content was fairly well developed.
( ) The content was very well developed.

5. In the past how much of the tuition of your students was paid by their Company?

( ) None
( ) Less than 50%.
( ) 50% or more
( ) All

6. In retrospect, how much of the tuition do you feel the company should have paid?

( ) None
( ) Less than 50%
( ) 50% or more
( ) All

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7. In the past, classrooms in industry, high schools, hotel rooms, and Lake Michigan College, etc. have been used for Industrial Management Training courses. Do you feel:

( ) This pattern is satisfactory and should be continued.
( ) An attempt should be made to provide a central classroom facility.
( ) Industrial facilities should be further utilized.
( ) Other: specify_____

_____

8. In general, do you feel that the time-of-day that the classes were offered was:

( ) Too late at night.
( ) Time of day was O.K.
( ) On wrong day of week.
( ) Day of week was O.K.

9. Do you feel that some day classes for night shift employees should be added:

( ) Yes
( ) No

10. In general, was the primary reason why you agreed to teach or coordinate for the IMTP?

( ) No clearly defined reason.
( ) Was "pressured" to do so by others.
( ) I enjoy teaching.
( ) For the added salary.

The present expansion of business, industry, and education raises many questions about the future directions of the IMTP. We are interested in your opinion about several aspects. Please answer each of the following with your frank opinion.

---

11. What other management or technically oriented courses do you feel the IMTP should provide.

_____   _____
_____   _____
_____   _____
_____   _____

12. What in your opinion, would be the best administrative arrangements for the training program sponsored by the IMTP.

( ) The administration of the program should be continued as it is - - cooperatively between a Steering Committee (respresentatives of several companies) and Lake Michigan College.
( ) The program should be operated completely by a representative industrial group.
( ) The program should be operated completely by Lake Michigan College.
( ) No opinion.
( ) Other: specify_____

_____

13. Which of the following types of training are needed by business and industry that could and should be offered by the IMTP? (Check as many as you desire)

( ) Pre-supervisory personnel level.
( ) Foreman and supervisory level.
( ) Middle management level.
( ) Top management level.
( ) Programs for technicians.
( ) Programs for engineering personnel.

14. Who should be admitted to take the classes or programs discussed in questions 12 and 13 above?

( ) Only those persons sponsored directly by a company or firm.
( ) Any person within a company or firm who wishes to enroll.
( ) Any persons in the public-at-large who wishes to enroll.
( ) Others: specify_____

_____

15. People have different opinions about the question of College credit for courses like those offered by the Industrial Management Training Program. Some feel the program should be more organized and give College credit, others feel it should be open to many people and not be restricted to College credit. Please indicate how you feel by choosing one of the following:

( ) The IMTP should be offered as a service to businesses and industry and not be concerned about College credit.
( ) The IMTP should cooperate with some College or University and give College credit for its courses.
( ) The IMTP should be reorganized so that it could give a College degree of some sort in the subject area.
( ) No opinion.
( ) The IMTP should be so organized that it will offer courses for College credit, or non-credit (audit), at the discretion of the student.
( ) The IMTP should best function in the following manner (Please indicate).

_____

_____

_____

_____

_____

APPENDIX C

QUESTIONNAIRE STUDENT

Company_____   Male_____

Firm (or)_____   Female_____

School_____   Date_____

Job Title_____

Management Training and Education Survey

Student Form

This questionnaire has two parts to it:

1. The <u>first part</u> deals with any experience you have had

    with the Industrial Management Training Program as

    well as your opinion as to its future.

2. The <u>second part</u> has to do with aspects of your back-

    ground and how you feel about certain things.

For the purposes of this investigation, the <u>answers of all</u>

<u>persons are important.</u> Since the <u>questionnaire is com-</u>

<u>pletely anonymous or confidential,</u> you may answer all

questions freely, without any concern about being identi-

fied.

      *   *   *   *   *   *

Remember, <u>no one</u> but the two research people at Michigan

State University will see this data. It is very important that

you be <u>completely open and frank</u> in all your answers.

Part I: <u>Industrial Management Training Program (IMTP)</u>

1. Please list below the <u>kind(s)</u> of experiences you have had with the IMTP. (Check more than one if appropriate.)

( ) No contact.
( ) I have taken some of their courses.
( ) I have been an instructor in the program.
( ) I have been a "coordinator" in the program.
( ) I have been responsible for placing people from my company in the program.
( ) I have been on the administrative board of the program.

> If you have had <u>no contact</u> with the program please skip to question number <u>12.</u> If you have had any <u>kind of experience</u> with the program please answer all the following questions.

2. Listed below are all the courses that have been sponsored by the IMTP.

a). In the <u>left</u> hand margin put an <u>X</u> before those <u>you</u> have taken.

b). In the <u>right</u> hand margin <u>rate only those courses</u> you have taken. Put an X in the proper column to indicate how <u>you feel</u> about the <u>subject matter</u> of the course, the <u>effectiveness</u> of the teacher, and the <u>benefit of the course to your job.</u>

	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
( ) 1. Introduction to IBM									
( ) 2. Intermediate IBM									
( ) 3. Basic Industrial Traffic Management									
( ) 4. Industrial Economics									
( ) 5. Factory Economics									
( ) 6. BI Economics									
( ) 7. Factory Economics for Supervisors									
( ) 8. Oral Communication									
( ) 9. Power of Small Group Discussions									
( ) 10. How to Speak Effectively									
( ) 11. Developmental Reading									
( ) 12. Effective Speaking for Foremen									
( ) 13. Labor Negotiations									
( ) 14. Management and Labor Relations									
( ) 15. Basic Industrial Purchasing									
( ) 16. Advanced Industrial Purchasing									

	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
( )17. Basic Industrial Drafting									
( )18. Advanced Industrial Drafting									
( )19. Quality Control									
( )20. Foundry Technology (Survey Course for Foremen)									
( )21. Practical Molding (Sand Control)									
( )22. Core Sand Technology									
( )23. Basic Elements of Foremanship									
( )24. Foremen Training									
( )25. Time Study for Foremen									
( )26. Slide Rule for Foremen									
( )27. Safety for Industrial Supervisors									
( )28. Basic Elements of Supervision									
( )29. Human Dynamics for Supervisory Personnel									
( )30. Work Simplification									
( )31. Basic Elements of Electricity DC									
( )32. Basic Elements of Electricity									
( )33. Electrical Code									
( )34. Basic Elements of Electricity AC									
( )35. Electrical Code (Refresher Course)									
( )36. Refresher Engineering									
( )37. Machine Tool Operation									
( )38. Fluid Mechanics									
( )39. Machine Tool Set-up									
( )40. Improving Machine Shop Techniques									
( )41. Fluid Mechanics									
( )42. Improving Machine Shop Inspection Techniques									
( )43. Instructing the Worker on the Job									
( )44. Basic Elements of Hydraulics									
( )45. Hydraulics Engineering									
( )46. Hydraulic Components									
( )47. Introduction to Hydraulics									
( )48. Elements of Hydraulics (Second Phase)									
( )49. H.O.B.S.O									

	Subject Matter			Teacher Effectiveness			Benefit of Course to Job		
	Poorly Developed	Moderately Developed	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Helpful	Very Helpful
( )50. Basic Elements of Metallurgy									
( )51. Die Design									
( )52. Tool Design									
( )53. Human Relations Clinic									
( )54. Conference Leadership									
( )55. Seminar in Personal Administration									
( )56. Case Problems									
( )57. Secretarial Development									
( )58. Techniques of Supervision									
( )59. Industrial Economics for Supervisors									
( )60. Advanced Machine Tool Operation									
( )61. Value Analysis									
( )62. Foundry Molding									

3. On an overall average, how would you rate the benefit of the courses you have taken to your work.

( ) Not helpful.
( ) Somewhat helpful.
( ) Very helpful.

4. When you think back to the content or subject matter of the courses how would you rate them.

( ) The content was not adequately developed.
( ) The content was fairly well developed.
( ) The content was very well developed.

5. In general how would you rate the teaching effectiveness of the instructors you have had in the program.

( ) Very poor
( ) Poor
( ) Good
( ) Very good

6. In the past how much of your tuition was paid by the company?

   ( ) None
   ( ) Less than 50%
   ( ) 50% or more
   ( ) All

7. In retrospect, how do you feel that the tuition should have been paid?

   ( ) Paid entirely by the student.
   ( ) Student should have paid 50% or more.
   ( ) Company should have paid 50% or more.
   ( ) Company should have paid all of the tuition.

8. In the past, classrooms in industry, high schools, hotel rooms, and Lake Michigan College, etc. have been used for Industrial Management Training courses. Do you feel:

   ( ) This pattern is satisfactory and should be continued.
   ( ) An attempt should be made to provide a central classroom facility.
   ( ) Industrial facilities should be further utilized.
   ( ) Other; specify_____

   _____

9. In general, do you feel that the time-of-day that the classes were offered was:

   ( ) Too late at night.
   ( ) Time of day was O.K.
   ( ) On wrong day of week.
   ( ) Day of week was O.K.

10. Do you feel that some day classes for night shift employees should be added:

   ( ) Yes
   ( ) No

11. In general, the most important reason why you took a course, or courses, was:

   ( ) No clearly defined reason.
   ( ) Was suggested to do so by management.
   ( ) Felt it would be helpful to my job.
   ( ) Felt it would be helpful for advancement or promotion.

   ┌───┐
   │ The present expansion of business, industry, and education │
   │ raises many questions about the future directions of the In- │
   │ dustrial Management Training Program. We are interested │
   │ in your opinion about several aspects. Please answer each │
   │ of the following with your frank opinion. │
   └───┘

12. What other management or technically oriented courses do you feel the IMTP should provide?

   _____   _____

   _____   _____

   _____   _____

13. What, in your opinion, would be the best administrative arrangements for the training program sponsored by the IMTP.

( ) The administration of the program should be continued as it is - - cooperatively between a Steering Committee (representatives of several companies) and Lake Michigan College.
( ) The program should be operated completely by a representative industrial group.
( ) The program should be operated completely by Lake Michigan College.
( ) No opinion.
( ) Other: specify_____

14. Which of the following types of training are needed by business and industry that could and should be offered by the IMTP? (Check as many as you desire.)

( ) Pre-supervisory personnel level.
( ) Foreman and supervisory level.
( ) Middle management level.
( ) Top management level.
( ) Programs for technicians.
( ) Programs for engineering personnel.

15. Who should be admitted to take the classes or programs discussed in questions 13 and 14 above?

( ) Only those persons sponsored directly by a company or firm.
( ) Any person within a company or firm who wishes to enroll.
( ) Any persons in the public-at-large who wishes to enroll.
( ) Other: specify_____

16. People have different opinions about the question of College credit for courses like those offered by the Industrial Management Training Program. Some feel the program should be more organized and give College credit, others feel it should be open to many people and not be restricted to College credit. Please indicate how you feel by choosing one of the following.

( ) The IMTP should be offered as a service to business and industry and not be concerned about College credit.
( ) The IMTP should cooperate with some College or University and give College credit for its courses.
( ) The IMTP should be reorganized so that it could give a College degree of some sort in the subject area.
( ) No opinion.
( ) The IMTP should be so organized that it will offer courses for College credit, or non-credit (audit), at the discretion of the student.
( ) The IMTP should best function in the following manner (Please indicate).

17. Listed below are several major divisions of Management Classifications. Please circle the one which best describes the division in which your job would be. Then, please, indicate how much you feel you need to know about each area.

Mark each area according to the following scale:										
(1) none (2) little (3) some (4) great (5) thoroughly										

Management Classifications	Working with equipment	Working with production	Working with materials	Working with machine & tools	Working with drawings & reports	Working with other personnel	Mathematics	Science and technical	Communications	Management & human relations	Accounting & general business
First Line Production Supervisors											
Office Supervisors											
General Foreman											
Superintendent											
Division or Department Heads											
Engineering Group Supervisors											
Vice-Presidents											
Presidents											
Staff Personnel: Eng, sales, account., personal, etc.											

18. Listed below are the same Management Classifications as listed in the previous question. Please <u>circle</u> the <u>same</u> area you did in question 17. Now please indicate <u>how you would rate yourself at present</u> in each area:

Mark each area according to the following scale:											
(1) poor (2) fair (3) average (4) good (5) excellent											
Management Classifications	Working with equipment	Working with production	Working with materials	Working with machine & tools	Working with drawings & reports	Working with other personnel	Mathematics	Science and technical	Communications	Management & human relations	Accounting & general business
First Line Production Supervisors											
Office Supervisors											
General Foreman											
Superintendent											
Division or Department Heads											
Engineering Group Supervisors											
Vice-Presidents											
Presidents											
Staff Personnel: Eng, sales, account, personal, etc.											

APPENDIX D

QUESTIONNAIRE MANAGEMENT

Company_____   Male_____

Firm (or)_____   Female_____

School_____   Date_____

Job Title_____

Management Training and Education Survey

Management Form

This questionnaire has two parts to it:

1. The first part deals with any experiences your company
   has had with the Industrial Management Training Pro-
   gram, as well as your company's opinion as to its future.

2. The second part deals with the nature of your company
   and the kinds of management positions in your company.

   *   *   *   *   *   *   *

   Remember, no one but the two research people at
   Michigan State University will see the original data.
   Your company will not be identified by name in the
   research report.

Part I: Industrial Management Training Program (IMTP).

1. Please list below the kind(s) of experiences your company or firm has had
    with the program. (Check more than one if appropriate).

    (   ) No experience.
    (   ) Employees have taken courses.
    (   ) Employees have taught courses for the program.
    (   ) Employees have been on the administrative board.
    (   ) Our company has helped finance the operation of the program.

    > If your company has had no experience with the IMTP please
    > skip to question number 9. If your company has had any kind
    > of experience with the program please answer all the follow-
    > ing questions.

2. Do you feel that the courses taken by your employees have been:

    (   ) Not helpful
    (   ) Somewhat helpful
    (   ) Very helpful

3. In the past how much of the student's expenses were paid by the company?

    (   ) None of the student's tuition.
    (   ) Less than 50% of the student's tuition.
    (   ) 50% or more.
    (   ) All of the student's tuition.

4. In retrospect, do you feel that the tuition for courses taken by employees
    should be:

    (   ) Paid entirely by the student.
    (   ) Paid more than 50% by the student.
    (   ) Paid more than 50% by the company.
    (   ) Paid entirely by the company.

5. In the past, classrooms in industry, high schools, hotel rooms, and Lake
    Michigan College, etc. have been used for Industrial Management Training
    courses. Do you feel:

    (   ) This pattern is staisfactory and should be continued.
    (   ) An attempt should be made to provide a central classroom facility.
    (   ) Industrial facilities should be further utilized.
    (   ) Other: specify_____

    _____

6. In general, do you feel that the time-of-day that the classes were offered was:

    (   ) Too late at night.
    (   ) Time of day was O.K.
    (   ) On wrong day of week.
    (   ) Day of week was O.K.

7. Do you feel that some day classes for night shift employees should be added:

( ) Yes
( ) No

8. In general, the most important reason for your employees taking a course, or courses, was: (check only one)

( ) No clearly defined reason.
( ) Was suggested to do so by management.
( ) Felt it would be helpful to their job.
( ) Felt it would be helpful for advancement or promotion.

> The present expansion of business, industry, and education raises many questions about the future directions of the Industrial Management Training Program, (IMTP). We are interested in your opinion about several aspects. Please answer each of the following with your frank opinion.

9. What other management or technically oriented courses do you feel the program should provide?

_____   _____

_____   _____

_____   _____

_____   _____

10. What, in your opinion, would be the best administrative arrangements for the training program sponsored by the IMTP.

( ) The administration of the program should be continued as it is - - cooperatively between a Steering Committee (representatives of several companies) and Lake Michigan College.
( ) The program should be operated completely by a representative industrial group.
( ) The program should be operated completely by Lake Michigan College.
( ) No opinion.
( ) Other: specify_____

_____

11. Which of the following types of training are needed by business and industry that could and should be offered by the IMTP? (Check as many as you desire.)

( ) Pre-supervisory personnel level.
( ) Foreman and supervisory level.
( ) Middle management level.
( ) Top management level.
( ) Programs for technicians.
( ) Programs for engineering personnel.

12. Who should be admitted to take the classes or programs discussed in questions 10 and 11 above?

( ) Only those persons sponsored directly by a company or firm.
( ) Any person within a company or firm who wishes to enroll.
( ) Any persons in the public-at-large who wishes to enroll.
( ) Other: specify_____

_____

13. People have different opinions about the question of College credit for courses like those offered by the Industrial Management Training Program. Some feel the program should be more organized and give College credit, others feel it should be open to many people and not be restricted to College credit. Please indicate how you feel by choosing one of the following.

( ) The IMTP should be offered as a service to business and industry and not be concerned about College credit.
( ) The IMTP should cooperate with some College or University and give College credit for its courses.
( ) The IMTP should be reorganized so that it could give a College degree of some sort in the subject area.
( ) No opinion.
( ) The IMTP should be so organized that it will offer courses for College credit, or non-credit (audit), at the discretion of the student.
( ) The IMTP should best function in the following manner (Please indicate)

_____

_____

_____

_____

_____

_____

art II: Industrial Management Training Program (IMTP)

> Please complete one copy of this form (Q-M-2) for your com-
> pany. The results will be used for statistical analysis only and
> your organization will not be identified in any published source.
> No one but the two research persons will have access to the ori-
> ginal data.

Name of Company_____

Nature of Business or Industry_____

Address_____

Name of Person Completing Questionnaire_____

Telephone Number and Extension_____

EMPLOYEMENT INFORMATION

1. Total number of persons currently employed_____

2. Total number of current job vacancies_____

3. Considering presidents or vice-presidents and all line supervisors
   (including foremen); plus office supervisors, salesmen, department
   and division heads as management personnel, approximately what
   percentage of such present personnel and/or professional employees
   (including engineers) have:

   ( ) Associate in Arts Degree   Masters Degree ( )
   ( ) Bachelors Degree   Doctors Degree ( )

4. Employment Trend projection.

Number of employees	Management	Professional &/or Engineering	Skilled Technicians	Skilled Trades	Unskilled	Total
Currently employed						
Estimate of 7/1/60						
Estimate of 7/1/65						
Estimate of 7/1/70						
Estimate of 7/1/75						

5. Please check the space opposite the description which best identifies the activities of your organization. (Check more than one if needed.)

____1. Agricultural Service (Farm Equip. dealers, etc.)

____2. Advertising (Radio, Newspaper, etc.)

____3. Auto Service (dealers, etc.)

____4. Bank and Finance (Loan, credit etc.)

____5. Construction (Contractors)

____6. Education (Private school, etc.)

____7. Entertainment and Recreation (Orchestra, etc.)

____8. Food, Dairy, Drink (Retail) (Super markets, etc.)

____9. Retail-other than food, dairy and drink (Retail Merchants)

____10. Health, Hospital, Medical, Dental, (Physician, etc.)

____11. Professional-other than medical and dental (Lawyers, etc.)

____12. Durable Manufacturing (Hard goods)

____13. Non-Durable Manufacturing (Soft goods)

____14. Government-Federal, State and Local (Mayors Off., etc.)

____15. Hotel and Motel (Inns)

____16. Insurance (Mutuals, etc.)

____17. Real Estate (Brokers)

____18. Service (other than auto) (Appliance shops, etc.)

____19. Transportation (Travel Bureaus, etc.)

____20. Utilities (Water, and lights etc.)

____21. Wholesaling (all products)

(Other: write in below)

____22._____

____23._____

____24._____

____25._____

6. Approximately how many management and professional personnel would you employ, if they were available:

       Immediately_____

       In the next 5 years_____

       In the next 10 years_____

Training Information

7. Do you have a <u>management training</u> department?_____ How many full-time employees in the department?_____.

8. What <u>Management Training</u> programs (one week or more duration) have you conducted since January 1, 1960 within your own company.

me of Course	No. of Trainees	Hrs. to Complete Program	Is program Continuous	Short Term	Should this course be given by:		
					Industry	IMTP	a College

9. Do you plan any changes in your management training or in your program?

_____

_____

_____

10. What Management Courses or programs (one week or more duration) have been conducted for you (by contract or agreement) by educational institutions since September 1, 1960?

urse me	Conducted by School Name	Number Enrolled	Location		Fee Charged	Should this course be added to a High School, Adult School, College, or Junior College.
			In plant	At school		

11. What <u>management courses</u> or programs should be added to the present

High School _____

_____

Adult School _____

_____

Junior College _____

_____

College or University _____

_____

College or University Extension _____

_____

12. Listed below are several major divisions of Management Classifications. Please indicate <u>for each classification how important</u> you feel it is for that person to <u>understand the area,</u> subject matter, or activity.

Mark each area according to the following scale:

(1) <u>None</u>   (2) <u>Little</u>   (3) Some   (4) <u>Great</u>   (5) Thoroughly

Management Classifications	Working with equipment	Working with production	Working with materials	Working with machine & tools	Working with drawings & reports	Working with other personnel	Mathematics	Science and technical	Communications	Management & human relations	Accounting & general business
First Line Production Supervisors											
Office Supervisors											
General Foreman											
Superintendent											
Division or Department Heads											
Engineering Group Supervisors											
Vice-Presidents											
Presidents											
Staff Personnel: Eng, sales, account. personal, etc.											

13. Listed below are the same Management Positions as were listed in question #12. Now please indicate how much (on the average) you feel the people in these positions in your company actually know about the area or subject matter.

Mark each area according to the following scale:

(1) Poor (2) Fair (3) Average (4) Good (5) Excellent

Management Classifications	Working with equipment	Working with production	Working with materials	Working with machine & tools	Working with drawings & reports	Working with other personnel	Mathematics	Science and technical	Communications	Management & human relations	Accounting & general business
First Line Production Supervisors											
Office Supervisors											
General Foreman											
Superintendent											
Division or Department Heads											
Engineering Group Supervisors											
Vice-Presidents											
Presidents											
Staff Personnel: Eng., sales, account. personal, etc.											

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APPENDIX E

QUESTIONNAIRE GENERAL

Part II

This part has to do with certain aspects of your background and how you feel about certain things.

*   *   *   *   *

Remember, <u>no one</u> but the two research people at Michigan State University will see this data. It is very important that you be <u>completely open and frank</u> in all your answers.

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Part II: Background Information

1. Where were you mainly reared or "brought up" in your youth (that is, up to the age of 15 or 16)? (Check only one)

    ( ) country
    ( ) country town
    ( ) city
    ( ) city suburb

2. Where have you mainly lived during the past five years.

    ( ) country
    ( ) country town
    ( ) city
    ( ) city suburb

3. How old are you (write age in box)

4. What is your marital status.

    ( ) Divorced
    ( ) Separated
    ( ) Widowed
    ( ) Single
    ( ) Married

5. How many children do you have? (write number in box)

6. About what is your total yearly income before taxes. Include "extra" income from other sources such as dividends, insurance, etc. (please write total in box)

7. If your spouse works, about what is his (her) total yearly income before taxes. (please write total in box)

8. What is your religion?

    ( ) Protestant
    ( ) Catholic
    ( ) Jewish
    ( ) None
    ( ) Other (please specify)_____

9. About how important is your religion in your daily life (check only one)

    ( ) I have no religion
    ( ) Not very important
    ( ) Fairly important
    ( ) Very important

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10. During an "average work day", you probably have occasion to talk and make contact with other persons where you are employed. Please estimate about what percent of these contacts and conversations are with people you feel <u>personally close to,</u> whom you consider to be <u>close friends,</u> or that are <u>relatives of yours.</u>

( ) None
( ) Less than 25%
( ) Between 25% and 50%
( ) Between 50% and 75%
( ) More than 75%

11. How important is it to you to work with people you feel personally close to?

( ) Not at all important
( ) Not very important
( ) Fairly important
( ) Very important

12. Please indicate below how much education you have. (check <u>more than one</u> if appropriate)

( ) Less than 8 years
( ) Between 8 and 12 years
( ) 12 years (I graduated from High School)
( ) Technical or trade school (indicate length of program and area of study)

_____

( ) Graduated from Junior College (please list major)

_____

( ) College or University (circle years attended) 1   2   3   4   5   6

Please list major and degree_____

( ) One or more advanced degrees (list major and degree)

_____

13. About how many times have you changed residency (communities not just houses) during the past 10 years? (Check only one)

( ) None
( ) 1 time
( ) 2 - 3 times
( ) 4 - 6 times
( ) 7 - 10 times
( ) over 10 times

14. About how many times have you changed jobs during the past 10 years?

( ) None
( ) 1 time
( ) 2 - 3 times
( ) 4 - 6 times
( ) 7 - 10 times
( ) over 10 times

15. Please state your occupation. Briefly state the title or name of your job and the nature of your work?

_____

_____

_____

_____

16. In respect to your religion, about to what extent do you observe the rules and regulations of your religion?

( ) I have no religion
( ) Seldom
( ) Sometimes
( ) Usually
( ) Almost always

17. Health experts say adding certain chemicals to drinking water results in less decay in people's teeth. If you could add these chemicals to your water with little cost to you, would you be willing to have the chemicals added?

( ) Probably not
( ) No
( ) Maybe
( ) Yes

18. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling about the following statement?

"New methods of raising children should be tried out whenever possible."

( ) Strongly disagree
( ) Slightly disagree
( ) Slightly agree
( ) Strongly agree

19. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control? Do you think they are doing something good or bad? If you had to decide, would you say they are doing wrong, or rather, that they are doing right?

( ) It is always right
( ) It is probably all right
( ) It is usually wrong
( ) It is always wrong

20. People have different ideas about what should be done concerning automation and other new ways of doing things. How do <u>you feel</u> about the following statement?

"Automation and similar new procedures should be encouraged (in government, business and industry) since eventually it creates new jobs and raises the standard of living."

( ) Disagree strongly
( ) Disagree slightly
( ) Agree strongly
( ) Agree slightly

21. Running a village, city, town or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed <u>regularly,</u> even if they are doing a good job."

( ) Strongly disagree
( ) Slightly disagree
( ) Slightly agree
( ) Strongly agree

22. Some people believe that mor _.ocal government income should be used for education even if doing so means raising the amount you pay in taxes. What are your feelings on this?

( ) Strongly disagree
( ) Slightly disagree
( ) Slightly agree
( ) Strongly agree

23. Some people believe that more <u>federal</u> government income should be used for education even if doing so means raising the amount you pay in taxes. What are your feelings on this?

( ) Strongly disagree
( ) Slightly disagree
( ) Slightly agree
( ) Strongly agree

24. People have different ideas about planning for education in their nation. Which one of the following do you believe is the best way?

( ) Planning for education should be left entirely to the parents.
( ) Educational planning should be primarily directed by the individual city or other local governmental unit.
( ) Educational planning should be primarily directed by the national government.

25. Some people are more set in their ways than others. How would you rate yourself?

( ) I find it very difficult to change.
( ) I find it slightly difficult to change.
( ) I find it somewhat easy to change my ways.
( ) I find it very easy to change my ways.

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26. I find it easier to follow rules than to do things on my own.

( ) Agree strongly
( ) Agree slightly
( ) Disagree slightly
( ) Disagree strongly

27. I like the kind of work that lets me do things about the same way from one week to the next.

( ) Agree strongly
( ) Agree slightly
( ) Disagree slightly
( ) Disagree strongly

28. Planning only makes a person unhappy because your plans hardly ever work out anyway. (Check only one)

( ) Agree strongly
( ) Agree slightly
( ) Disagree slightly
( ) Disagree strongly

29. Which of the following requisites do you consider most important to make your life more happy and satisfactory in the future?

( ) Nothing
( ) More money
( ) More friends
( ) Better job
( ) Good health
( ) Other (please specify)_____

30. What do you think you can do to make this possible? Please answer one of the two alternatives below.

Nothing ( )
Please specify_____

_____

_____

_____

31. In every community each group (for example, schools, businessmen, labor, the local government) has a different job to do for the community. In your community, would you say that the schools are doing an excellent, good, fair, or poor job? How about businessmen? Labor? The local government? The doctors and hospitals? The church? Please answer for each group. (Check only one for each).

   A. Elementary Schools

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   B. Secondary Schools

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   C. Universities

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   D. Businessmen

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   E. Labor

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   F. Local Government

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

   G. National Government

   ( ) Poor
   ( ) Fair
   ( ) Good
   ( ) Excellent

H. Health Services (Doctors and Hospitals)

       ( ) Poor
       ( ) Fair
       ( ) Good
       ( ) Excellent

I. Churches
       ( ) Poor
       ( ) Fair
       ( ) Good
       ( ) Excellent

APPENDIX F

CODE BOOKS

1. Student
2. Teacher
3. Manager

STUDENT CODE BOOK

STUDENT, TEACHER, AND MANAGEMENT EVALUATIONS OF THE BENTON
HARBOR/ST. JOSEPH INDUSTRIAL MANAGEMENT TRAINING PROGRAM

STUDENT FORM

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code <u>0</u> or <u>00</u> will always mean Not Applicable or Nothing, except as noted.

2. Code **±** for a one column no response, or <u>-9</u> for a two column no response, or <u>-99</u> for a three column no response will mean there was <u>No Information</u> or <u>Respondent did not answer.</u>

3. In each case the following pages the <u>column to the left</u> contains the column number of the IBM card; the <u>second column</u> contains the question number from the questionnaire; the <u>third column</u> (item detail) contains the code within each column of the IBM card with an explanation of the code.

4. Coder instructions always follow a line across the page and are clearly indicated.

5. In some cases <u>when codes are equal</u> to others already used, they are not repeated each time, but reference is made to a previous code or the immediately previous code with "same."

6. Under <u>Code</u>, the first number is the questionnaire question alternative and the second number is the actual code which is entered on the data sheets (i.e., 1-4; one (<u>1</u>) is the questionnaire question alternative and <u>4</u> is the code).

Card/Col.	Ques.	Item Detail	Code
1	Face Sheet and Q-S-1 Ques. 1	Group	-1. Management -2. Student -3. Teacher
2,3	Face Sheet	Company/School Affiliation	-01. Auto Specialities Manufacturing Co. -02. Appliance Buyers Credit Union -03. Bendix Corporation -04. Benton Harbor Malleable Industries -05. Berrien County Highway Commission -06. Canteen Company of South Michigan -07. Casting Service Corporation -08. City of Benton Harbor -09. Clark Equipment Company -10. Covel Manufacturing Company -11. Dawn Home Canning -12. Dotmar Industries -13. Electro Voice Corporation -14. Engineering Works (Benton Harbor) -15. Gast Manufacturing Company -16. Heath Company -17. Hughes Plastics -18. Hydraulics -19. Indiana of Mich. Electric Co. -20. Industrial Rubber Goods -21. Jessup Wood Products -22. Kawneer Company (Aircraft Division) -23. Kaywood Corporation -24. Laboratory Equipment Company -25. Martin Fabrication of Steel Supply Company -26. Mich. Fruit Canners -27. Mich. Tube Company -28. Modar Incorporated -29. Modern Light Metal Incorporated -30. Modern Plastics -31. Muellen Container Company -32. New Products Corporation -33. Morton Door Closer Company -34. Nowlen Lumber Company -35. Paramount Die Casting Company -36. Peer Incorporated -37. Peer Division of Landis Machine Company -38. Pemco Product Engineering Co.

Card/Col.	Ques.	Item Detail	Code
2,3 (con't)			-39. Produce Engineering & Manf. Company
			-40. F.P. Rosback Company
			-41. Saranac Machine Company
			-42. Simonize Company
			-43. Sodus Fruit Exchange
			-44. Superior Steel & Malleable Casting
			-45. Thersin Clemens Company
			-46. Twin Cities Container Cor.
			-47. Tyler Refrigeration Cor.
			-48. Union Bay Camp Paper Cor.
			-49. Veloco Machine
			-50. Voice of Music Corporation
			-51. Watervliet Paper Company
			-52. Winkel Machine
			-53. Whirlpool Corporation (St. Joseph Division)
			-54. Whirlpool Seeger Corporation
			-55. Whirlpool Corporation
			-56. Whirlpool Corporation (Laundry Group)
			-57. Whirlpool Corporation (Research & Development)
			-58. Michigan Bell Telephone
			-59. Memorial Hospital
			-60. Bohn Aluminum & Brass Company
			-61. Okade Controls Incorporated
			-62. Producers Creamery (Pet)
			-63. Jewel Tea Company
			-64. KRT Incorporated
4,5	Q-S-1	Type of Company	-01. Foundry Industry
			-02. Non Durable Manufacturing (soft goods)
			-03. Heavy Equipment Industry
			-04. Construction & Building Industry
			-05. Machine Tool Manufacturing
			-06. Durable Manufacturing (component Parts)
			-07. Electronics Industry
			-08. Appliances (Home)
			-09. Plastics Industry
			-10. Packaging Industry (containers, etc.)
			-11. Utilities (public)
			-12. Wholesale Merchandisers (all products)

Card/Col.	Ques.	Item Detail	Code	
6,7	Face Sheet	Occupation (catagory)	-01.	Skilled Trades & Secretarial
			-02.	Sales
			-03.	Personnel Supervision
			-04.	Production Supervision
			-05.	Technical Supervision
			-06.	Professional
			-07.	Top Management
8	Face Sheet	Sex	-1.	Male
			-2.	Female
9,10	Postmark	Date[1] returned by week of receipt	-01.	4-1[2] April 1st week
			-02.	4-2 April 2nd week
			-03.	4-3 April 3rd week
			-04.	4-4 April 4th week
			-05.	5-1 May 1st week
			-06.	5-2 May 2nd week
			-07.	5-3 May 3rd week
			-08.	5-4 May 4th week
			-09.	6-1 June 1st week
			-10.	6-2 June 2nd week
			-11.	6-3 June 3rd week
			-12.	6-4 June 4th week
11	None	Deck No.	-1.	Deck 1 (Management)
12	None	Card No.	-1.	Card 1
13-16	None	Respondent No.	-0001	Number respondents consecutively by groups
			-9999	as received.
17	Q-S-1 Question 1	Experience with IMTP (Kind of)	-1.	None
			-2.	Some courses
			-3.	Instructor
			-4.	Coordinator
			-5.	Co., Assign.
			-6.	Adm. Board
			-7.	2,3,4
			-8.	2,3,5
			-9.	2,3,6
18	Q-S-1 Ques. 2-1	Course[1] No. 1 (Taken)	-1.	Yes
			-2.	No
19	Q-S-1 Ques. 2-1	Course No. 1 (Subject Matter) (Development)	-1.	Poor
			-2.	Moderate
			-3.	Well

[1]The first Monday of each month is to be used as "starting" the month. Data received prior to a first Monday goes into the previous month.

[2]First digit indicates month, second digit indicates week of month.

Card/Col.	Ques.	Item Detail	Code	
20	Q-S-1 Ques. 2-1	Course No. 1 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
21	Q-S-1 Ques. 2-1	Course No. 1 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
22	Q-S-1 Ques. 2-2	Course No. 2 (Taken)	-1. -2.	Yes No
23	Q-S-1 Ques. 2-2	Course No. 2 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
24	Q-S-1 Ques. 2-2	Course No. 2 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
25	Q-S-1 Ques. 2-2	Course No. 2 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
26	Q-S-1 Ques. 2-3	Course No. 3 Taken	-1. -2.	Yes No
27	Q-S-1 Ques. 2-3	Course No. 3 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
28	Q-S-1 Ques. 2-3	Course No. 3 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
29	Q-S-1 Ques. 2-3	Course No. 3 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-S-1 Ques. 2-4	Course No. 4 (Taken)	-1. -2.	Yes No

INSTRUCTIONS TO CODER

Each course in question 2 takes 4 columns. The first column designates whether respondent took the course; the second column how he "felt" about subject matter; the third column "teacher effectiveness"; and the fourth column "benefit to job."

Card/Col.	Ques.	Item Detail	Code	
31	Q-S-1 Ques. 2-4	Course No. 4 Subject Matter (Development	-1. -2. -3.	Poor Moderate Well
32	Q-S-1 Ques. 2-4	Course No. 4 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
33	Q-S-1 Ques. 2-4	Course No. 4 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
34	Q-S-1 Ques. 2-5	Course No. 5 (Taken)	-1. -2.	Yes No
35	Q-S-1 Ques. 2-5	Course No. 5 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
36	Q-S-1 Ques. 2-5	Course No. 5 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
37	Q-S-1 Ques. 2-5	Course No. 5 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
38	Q-S-1 Ques. 2-6	Course No. 6 (Taken)	-1. -2.	Yes No
39	Q-S-1 Ques. 2-6	Course No. 6 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
40	Q-S-1 Ques. 2-6	Course No. 6 Teacher Effectiveness	-1. -2. -3.	Poor Average GOOd
41	Q-S-1 Ques. 2-6	Course No. 6 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
42	Q-S-1 Ques. 2-7	Course No. 7 (Taken)	-1. -2.	Yes No
43	Q-S-1 Ques. 2-7	Course No. 7 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Ques.	Item Detail	Code	
44	Q-S-I Ques. 2-7	Course No. 7 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
45	Q-S-I Ques. 2-7	Course No. 7 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
46	Q-S-1 Ques. 2-8	Course No. 8 (Taken)	-1. -2.	Yes No
47	Q-S-1 Ques. 2-8	Course No. 8 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
48	Q-S-1 Ques. 2-8	Course No. 8 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
49	Q-S-1 Ques. 2-8	Course No. 8 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
50	Q-S-1 Ques. 2-9	Course No. 9 (Taken)	-1. -2.	Yes No
51	Q-S-1 Ques. 2-9	Course No. 9 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
52	Q-S-1 Ques. 2-9	Course No. 9 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
53	Q-S-1 Ques. 2-9	Course No. 9 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
54	Q-S-1 Ques. 2-10	Course No. 10 (taken)	-1. -2.	Yes No
55	Q-S-1 Ques. 2-10	Course No. 10 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
56	Q-S-1 Ques. 2-10	Course No. 10 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
57	Q-S-1 Ques. 2-10	Course No. 10 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	
58	Q-S-1 Ques. 2-11	Course No. 11 (Taken)	-1. -2.	Yes No
59	Q-S-1 Ques. 2-11	Course No. 11 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
60	Q-S-1 Ques. 2-11	Course No. 11 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
61	Q-S-1 Ques. 2-11	Course No. 11 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
62	Q-S-1 Ques. 2-12	Course No. 12 (Taken)	-1. -2.	Yes No
63	Q-S-1 Ques. 2-12	Course No. 12 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
64	Q-S-1 Ques. 2-12	Course No. 12 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
65	Q-S-1 Ques. 2-12	Course No. 12 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
66	Q-S-1 Ques. 2-13	Course No. 13 (Taken)	-1. -2.	Yes No
67	Q-S-1 Ques. 2-13	Course No. 13 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
68	Q-S-1 Ques. 2-13	Course No. 13 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
69	Q-S-1 Ques. 2-13	Course No. 13 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
70	Q-S-1 Ques. 2-14	Course No. 14 (Taken)	-1. -2.	Yes No
71	Q-S-1 Ques. 2-14	Course No. 14 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Ques.	Item Detail	Code	
72	Q-S-1 Ques. 2-14	Course No. 14 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
73	Q-S-1 Ques. 2-14	Course No. 14 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

<u>Card 1</u>

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's. SAME as Management Card 1

Card/Col.	Ques.	Item Detail	Code	
11	None	Deck No.	-2.	Deck 2 (Student)
12	None	Card No.	-1.	Card 2
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received.
17	Q-S-1 Ques. 2-15	Course No. 15 (Taken)	-1. -2.	Yes No
18	Q-S-1 Ques. 2-15	Course No. 15 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
19	Q-S-1 Ques. 2-15	Course No. 15 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
20	Q-S-1 Ques. 2-15	Course No. 15 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
21	Q-S-1 Ques. 2-16	Course No. 16 (Taken)	-1. -2.	Yes No
22	Q-S-1 Ques. 2-16	Course No. 16 Subject Matter (Developmental)	-1. -2. -3.	Poor Moderate Well
23	Q-S-1 Ques. 2-16	Course No. 16 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
24	Q-S-1 Ques. 2-16	Course No. 16 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
25	Q-S-1 Ques. 2-17	Course No. 17 (Taken)	-1. -2.	Yes No
26	Q-S-1 Ques. 2-17	Course No. 17 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
27	Q-S-1 Ques. 2-17	Course No. 17 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
28	Q-S-1 Ques. 2-17	Course No. 17 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

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Card/Col.	Ques.	Item Detail	Code	
29	Q-S-1 Ques. 2-18	Course No. 18 (taken)	-1. -2.	Yes No
30	Q-S-1 Ques. 2-18	Course No. 18 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
31	Q-S-1 Ques. 2-18	Course No. 18 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
32	Q-S-1 Ques. 2-18	Course No. 18 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
33	Q-S-1 Ques. 2-19	Course No. 19 (Taken)	-1. -2.	Yes No
34	Q-S-1 Ques. 2-19	Course No. 19 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
35	Q-S-1 Ques. 2-19	Course No. 19 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
36	Q-S-1 Ques. 2-19	Course No. 19 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
37	Q-S-1 Ques. 2-20	Course No. 20 (Taken)	-1. -2.	Yes No
38	Q-S-1 Ques. 2-20	Course No. 20 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Good
39	Q-S-1 Ques. 2-20	Course No. 20 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
40	Q-S-1 Ques. 2-20	Course No. 20 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
41	Q-S-1 Ques. 2-21	Course No. 21 (Taken)	-1. -2.	Yes No

Card/Col.	Ques.	Item Detail	Code	
42	Q-S-1 Ques. 2-21	Course No. 21 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
43	Q-S-1 Ques. 2-21	Course No. 21 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
44	Q-S-1 Ques. 2-21	Course No. 21 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
45	Q-S-1 Ques. 2-22	Course No. 22 (Taken)	-1. -2.	Yes No
46	Q-S-1 Ques. 2-22	Course No. 22 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
47	Q-S-1 Ques. 2-22	Course No. 22 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
48	Q-S-1 Ques. 2-22	Course No. 22 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
49	Q-S-1 Ques. 2-23	Course No. 23 (Taken)	-1. -2.	Yes No
50	Q-S-1 Ques. 2-23	Course No. 23 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
51	Q-S-1 Ques. 2-23	Course No. 23 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
52	Q-S-1 Ques. 2-23	Course No. 23 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
53	Q-S-1 Ques. 2-24	Course No. 24 (Taken)	-1. -2.	Yes No
54	Q-S-1 Ques. 2-24	Course No. 24 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Ques.	Item Detail	Code	
55	Q-S-1 Ques. 2-24	Course No. 24 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
56	Q-S-1 Ques. 2-24	Course No. 24 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
57	Q-S-1 Ques. 2-25	Course No. 25 (Taken)	-1. -2.	Yes No
58	Q-S-1 Ques. 2-25	Course No. 25 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
59	Q-S-1 Ques. 2-25	Course No. 25 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
60	Q-S-1 Ques. 2-25	Course No. 25 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
61	Q-S-1 Ques. 2-26	Course No. 26 (Taken)	-1. -2.	Yes No
62	Q-S-1 Ques. 2-26	Course No. 26 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
63	Q-S-1 Ques. 2-26	Course No. 26 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
64	Q-S-1 Ques. 2-26	Course No. 26 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
65	Q-S-1 Ques. 2-27	Course No. 27 (Taken)	-1. -2.	Yes No
66	Q-S-1 Ques. 2-27	Course No. 27 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
67	Q-S-1 Ques. 2-27	Course No. 27 Teacher Effective- ness	-1. -2. -3.	Poor Average Good

Card/Col.	Ques.	Item Detail	Code	
68	Q-S-1 Ques. 2-27	Course No. 27 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
69	Q-S-1 Ques. 2-28	Course No. 28 (Taken)	-1. -2.	Yes No
70	Q-S-1 Ques. 2-28	Course No. 28 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
71	Q-S-1 Ques. 2-28	Course No. 28 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
72	Q-S-1 Ques. 2-28	Course No. 28 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
73	Q-S-1 Ques. 2-29	Course No. 29 (Taken)	-1. -2.	Yes No
74	Q-S-1 Ques. 2-29	Course No. 29 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
75	Q-S-1 Ques. 2-29	Course No. 29 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
76	Q-S-1 Ques. 2-29	Course No. 29 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	

<u>1st</u> 10 Col's. <u>SAME</u> as Management Card 1

11	None	Deck No.	-2.	Deck 2 (Student)
12	None	Card No.	-1.	Card 3
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received
17	Q-S-1 Ques. 2-30	Course No. 30 (Taken)	-1. -2.	Yes No
18	Q-S-1 Ques. 2-30	Course No. 30 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
19	Q-S-1 Ques. 2-30	Course No. 30 Teacher Effective-ness	-1. -2. -3.	Poor Average Good
20	Q-S-1 Ques. 2-30	Course No. 30 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
21	Q-S-1 Ques. 2-31	Course No. 31 (Taken)	-1. -2.	Yes No
22	Q-S-1 Ques. 2-31	Course No. 31 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
23	Q-S-1 Ques. 2-31	Course No. 31 Teacher Effective-ness	-1. -2. -3.	Poor Average Good
24	Q-S-1 Ques. 2-31	Course No. 31 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
25	Q-S-1 Ques. 2-32	Course No. 32 (Taken)	-1. -2.	Yes No
26	Q-S-1 Ques. 2-32	Course No. 32 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
27	Q-S-1 Ques. 2-32	Course No. 32 Teacher Effective-ness	-1. -2. -3.	Poor Average Good
28	Q-S-1 Ques. 2-32	Course No. 32 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	
29	Q-S-1 Ques. 2-33	Course No. 33 (Taken)	-1. -2.	Yes No
30	Q-S-1 Ques. 2-33	Course No. 33 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
31	Q-S-1 Ques. 2-33	Course No. 33 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
32	Q-S-1 Ques. 2-33	Course No. 33 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
33	Q-S-1 Ques. 2-34	Course No. 34 (Taken)	-1. -2.	Yes No
34	Q-S-1 Ques. 2-34	Course No. 34 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
35	Q-S-1 Ques. 2-34	Course No. 34 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
36	Q-S-1 Ques. 2-34	Course No. 34 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
37	Q-S-1 Ques. 2-35	Course No. 35 (Taken)	-1. -2.	Yes No
38	Q-S-1 Ques. 2-35	Course No. 35 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
39	Q-S-1 Ques. 2-35	Course No. 35 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
40	Q-S-1 Ques. 2-35	Course No. 35 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
41	Q-S-1 Ques. 2-36	Course No. 36 (Taken)	-1. -2.	Yes No
42	Q-S-1 Ques. 2-36	Course No. 36 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Ques.	Item Detail	Code	
43	Q-S-1 Ques. 2-36	Course No. 36 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
44	Q-S-1 Ques. 2-36	Course No. 36 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
45	Q-S-1 Ques. 2-37	Course No. 37 (Taken)	-1. -2.	Yes No
46	Q-S-1 Ques. 2-37	Course No. 37 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
47	Q-S-1 Ques. 2-37	Course No. 37 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
48	Q-S-1 Ques. 2-37	Course No. 37 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
49	Q-S-1 Ques. 2-38	Course No. 38 (Taken)	-1. -2.	Yes No
50	Q-S-1 Ques. 2-38	Course No. 38 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
51	Q-S-1 Ques. 2-38	Course No. 38 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
52	Q-S-1 Ques. 2-38	Course No. 38 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
53	Q-S-1 Ques. 2-39	Course No. 39 (Taken)	-1. -2.	Yes No
54	Q-S-1 Ques. 2-39	Course No. 39 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
55	Q-S-1 Ques. 2-39	Course No. 39 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
56	Q-S-1 Ques. 2-39	Course No. 39 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	
57	Q-S-1 Ques. 2-40	Course No. 40 (Taken)	-1. -2.	Yes No
58	Q-S-1 Ques. 2-40	Course No. 40 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
59	Q-S-1 Ques. 2-40	Course No. 40 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
60	Q-S-1 Ques. 2-40	Course No. 40 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
61	Q-S-1 Ques. 2-41	Course No. 41 (Taken)	-1. -2.	Yes No
62	Q-S-1 Ques. 2-41	Course No. 41 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
63	Q-S-1 Ques. 2-41	Course No. 41 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
64	Q-S-1 Ques. 2-41	Course No. 41 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
65	Q-S-1 Ques. 2-42	Course No. 42 (Taken)	-1. -2.	Yes No
66	Q-S-1 Ques. 2-42	Course No. 42 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
67	Q-S-1 Ques. 2-42	Course No. 42 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
68	Q-S-1 Ques. 2-42	Course No. 42 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
69	Q-S-1 Ques. 2-43	Course No. 43 (Taken)	-1. -2.	Yes No
70	Q-S-1 Ques. 2-43	Course No. 43 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Ques.	Item Detail	Code	
71	Q-S-1 Ques. 2-43	Course No. 43 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
72	Q-S-1 Ques. 2-43	Course No. 43 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
73	Q-S-1 Ques. 2-44	Course No. 44 (Taken)	-1. -2.	Yes No
74	Q-S-1 Ques. 2-44	Course No. 44 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
75	Q-S-1 Ques. 2-44	Course No. 44 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
76	Q-S-1 Ques. 2-44	Course No. 44 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's. SAME as Management Card 1

11	None	Deck No.	-2.	Deck 2 (Student)
12	None	Card No.	-1.	Card 4
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received.

| 17 | Q-S-1 Ques. 2-45 | Course No. 45 (Taken) | -1. -2. | Yes No |

| 18 | Q-S-1 Ques. 2-45 | Course No. 45 Subject Matter (Development) | -1. -2. -3. | Poor Moderate Well |

| 19 | Q-S-1 Ques. 2-45 | Course No. 45 Teacher Effectiveness | -1. -2. -3. | Poor Average Good |

| 20 | Q-S-1 Ques. 2-45 | Course No. 45 Benefit to Job | -1. -2. -3. | Not Helpful Somewhat Helpful Very Helpful |

| 21 | Q-S-1 Ques. 2-46 | Course No. 46 (Taken) | -1. -2. | Yes No |

| 22 | Q-S-1 Ques. 2-46 | Course No. 46 Subject Matter (Development) | -1. -2. -3. | Poor Moderate Well |

| 23 | Q-S-1 Ques. 2-46 | Course No. 46 Teacher Effectiveness | -1. -2. -3. | Poor Average Good |

| 24 | Q-S-1 Ques. 2-46 | Course No. 46 Benefit to Job | -1. -2. -3. | Not Helpful Somewhat Helpful Very Helpful |

| 25 | Q-S-1 Ques. 2-47 | Course No. 47 (Taken) | -1. -2. | Yes No |

| 26 | Q-S-1 Ques. 2-47 | Course No. 47 Subject Matter (Development) | -1. -2. -3. | Poor Moderate Well |

| 27 | Q-S-1 Ques. 2-47 | Course No. 47 Teacher Effectiveness | -1. -2. -3. | Poor Average Good |

| 28 | Q-S-1 Ques. 2-47 | Course No. 47 Benefit to Job | -1. -2. -3. | Not Helpful Somewhat Helpful Very Helpful |

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Card/Col.	Ques.	Item Detail	Code	
29	Q-S-1 Ques. 2-48	Course No. 48 (Taken)	-1. -2.	Yes No
30	Q-S-1 Ques. 2-48	Course No. 48 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
31	Q-S-1 Ques. 2-48	Course No. 48 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
32	Q-S-1 Ques. 2-48	Course No. 48 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
33	Q-S-1 Ques. 2-49	Course No. 49 (Taken)	-1. -2.	Yes No
34	Q-S-1 Ques. 2-49	Course No. 49 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
35	Q-S-1 Ques. 2-49	Course No. 49 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
36	Q-S-1 Ques. 2-49	Course No. 49 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
37	Q-S-1 Ques. 2-50	Course No. 50 (Taken)	-1. -2.	Yes No
38	Q-S-1 Ques. 2-50	Course No. 50 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
39	Q-S-1 Ques. 2-50	Course No. 50 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
40	Q-S-1 Ques. 2-50	Course No. 50 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
41	Q-S-1 Ques. 2-51	Course No. 51 (Taken)	-1. -2.	Yes No
42	Q-S-1 Ques. 2-51	Course No. 51 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
43	Q-S-1 Ques. 2-51	Course No. 51 Teacher Effective- ness	-1. -2. -3.	Poor Average Good

Card/Col.	Ques.	Item Detail	Code	
44	Q-S-1 Ques. 2-51	Course No. 51 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
45	Q-S-1 Ques. 2-52	Course No. 52 (Taken)	-1. -2.	Yes No
46	Q-S-1 Ques. 2-52	Course No. 52 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
47	Q-S-1 Ques. 2-52	Course No. 52 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
48	Q-S-1 Ques. 2-52	Course No. 52 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
49	Q-S-1 Ques. 2-53	Course No. 53 (Taken)	-1. -2.	Yes No
50	Q-S-1 Ques. 2-53	Course No. 53 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
51	Q-S-1 Ques. 2-53	Course No. 53 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
52	Q-S-1 Ques. 2-53	Course No. 53 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
53	Q-S-1 Ques. 2-54	Course No. 54 (Taken)	-1. -2.	Yes No
54	Q-S-1 Ques. 2-54	Course No. 54 Subject Matter (Development)	-1. -2.m -3.	Poor Moderate Well
55	Q-S-1 Ques. 2-54	Course No. 54 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
56	Q-S-1 Ques. 2-54	Course No. 54 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	
57	Q-S-1 Ques. 2-55	Course No. 55 (Taken)	-1. -2.	Yes No
58	Q-S-1 Ques. 2-55	Course No. 55 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
59	Q-S-1 Ques. 2-55	Course No. 55 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
60	Q-S-1 Ques. 2-55	Course No. 55 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
61	Q-S-1 Ques. 2-56	Course No. 56 (Taken)	-1. -2.	Yes No
62	Q-S-1 Ques. 2-56	Course No. 56 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
63	Q-S-1 Ques. 2-56	Course No. 56 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
64	Q-S-1 Ques. 2-56	Course No. 56 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
65	Q-S-1 Ques. 2-57	Course No. 57 (Taken)	-1. -2.	Yes No
66	Q-S-1 Ques. 2-57	Course No. 57 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
67	Q-S-1 Ques. 2-57	Course No. 57 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
68	Q-S-1 Ques. 2-57	Course No. 57 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
69	Q-S-1 Ques. 2-58	Course No. 58 (Taken)	-1. -2.	Yes No
70	Q-S-1 Ques. 2-58	Course No. 58 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

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<u>Card/Col.</u>	<u>Ques.</u>	<u>Item Detail</u>	<u>Code</u>	
71	Q-S-1 Ques. 2-58	Course No. 58 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
72	Q-S-1 Ques. 2-58	Course No. 58 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
73	Q-S-1 Ques. 2-59	Course No. 59 (Taken)	-1. -2.	Yes No
74	Q-S-1 Ques. 2-59	Course No. 59 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
75	Q-S-1 Ques. 2-59	Course No. 59 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
76	Q-S-1 Ques. 2-59	Course No. 59 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

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Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's. SAME as Management Card 1

Card/Col.	Ques.	Item Detail	Code	
11	None	Deck No.	-2.	Deck 2 (Student)
12	None	Card No.	-1.	Card 5
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received.
17	Q-S-1 Ques. 2-60	Course No. 60 (Taken)	-1. -2.	Yes No
18	Q-S-1 Ques. 2-60	Course No. 60 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
19	Q-S-1 Ques. 2-60	Course No. 60 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
20	Q-S-1 Ques. 2-60	Course No. 60 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
21	Q-S-1 Ques. 2-61	Course No. 61 (Taken)	-1. -2.	Yes No
22	Q-S-1 Ques. 2-61	Course No. 61 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
23	Q-S-1 Ques. 2-61	Course No. 61 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
24	Q-S-1 Ques. 2-61	Course No. 61 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
25	Q-S-1 Ques. 2-62	Course No. 62 (Taken)	-1. -2.	Yes No
26	Q-S-1 Ques. 2-62	Course No. 62 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
27	Q-S-1 Ques. 2-62	Course No. 62 Teacher Effective- ness	-1. -2. -3.	Poor Average Good
28	Q-S-1 Ques. 2-62	Course No. 62 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Ques.	Item Detail	Code	
29	Q-S-1 Ques. 3	Course Benefit	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-S-1 Ques. 4	Course Adequacy	-1. -2. •3.	Not Developed Fairly Developed Well Developed
31	Q-S-1 Ques. 5	Instructor Effectiveness	-1. -2. -3. -4.	Very Poor Poor Good Very Good
32	Q-S-1 Ques. 6	Student Expenses (past payment policy)	-1. -2. -3. -4.	None Less than 50% 50% or more All
33	Q-S-1 Ques. 7	Student Tuition (payment policy agreement)	-1. -2. -3. -4.	All by student 50% student 50% company All by company
34	Q-S-1 Ques. 8	Classroom Facilities	-1. -2. -3. -4.	Satisfactory as is Central facility Industrial more Other
35	Q-S-1 Ques. 9	Class Time	-1. -2. -3. -4. -5.	Too late Time O.K. Wrong Day Day O.K. 2 & 4 - Time O.K. & Day O.K.
36	Q-S-1 Ques. 10	Night Shift	-1. -2.	Yes No
37	Q-S-1 Ques. 11	Courses (reasons taken)	-1. -2. -3. -4. -5. -6. -7.	Undefined Suggested by management Felt helpful to job Felt helpful to adv. 3 &4 1 & 3 2 & 3
38, 39	Q-S-1 Ques. 12	Courses (Specific needs)	-01. -02. -03.	None Devise Code System on receipt of Data
40	Q-S-1 Ques. 13	Administration of IMTP	-1. -2. -3. -4. -5.	As is By industrial group By Lake Mich. Coll. No opinion Other

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Card/Col.	Ques.	Item Detail	Code	
41	Q-S-1 Ques. 14	Courses (Types needed)	-1.	Pre-supervision
			-2.	Supervision
			-3.	Middle management
			-4.	Top Management
			-5.	Technician
			-6.	Engineering
			-7.	1,2,5
			-8.	1,2,3,5,6
			-9.	All
42	Q-S-1 Ques. 15	Courses (Admittance to)	-1.	Company sponsored
			-2.	Company - anyone
			-3.	Public-at-large
			-4.	Other
			-5.	2,3
			thru -9.	Devise later
43	Q-S-1 Ques. 16	College credit	-1.	No credit
			-2.	College Credit
			-3.	Degree
			-4.	No opinion
			-5.	Credit optional
			-6.	
			-7.	Devise code later
			-8.	
			-9.	
44	Q-S-1 Ques. 17-A-1	Competencies felt needed by students (Equipment)	-0.	(No rate given)
			-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thoroughly
45	Q-S-1 Ques. 17-A-2	(Production)	-1. thru -5.	Same
46	Q-S-1 Ques. 17-A-3	(Materials)	-1. thru -5.	Same
47	Q-S-1 Ques. 17-A-4	(Machine-Tools)	-1. thru -5.	Same
48	Q-S-1	(Drawing & reports)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
49	Q-S-1 Ques. 17-A-6	(Other personnel)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
50	Q-S-1 Ques. 17-A-7	(Mathematics)	-1. thru -5.	Same
51	Q-S-1 Ques. 17-A-8	(Science & Technical)	-1. thru -5.	Same
52	Q-S-1 Ques. 17-A-9	(Communications)	-1. thru -5.	Same
53	Q-S-1 Ques. 17-A-10	(Management & Human Relations)	-1. thru -5.	Same
54	Q-S-1 Ques. 17-A-11	(Accounting & General Business)	-1. thru -5.	Same
55	Q-S-1 Ques. 17-B-1	Competencies felt needed by students (Equipment)	-1. thru -5.	Same
56	Q-S-1 Ques. 17-B-2	(Production)	-1. thru -5.	Same
57	Q-S-1 Ques. 17-B-3	(Materials)	-1. thru -5.	Same
58	Q-S-1 Ques. 17-B-4	(Machine & Tools)	-1. thru -5.	Same
59	Q-S-1 Ques. 17-B-5	(Drawing & Reports)	-1. thru -5.	Same
60	Q-S-1 Ques. 17-B-6	(Other Personnel)	-1. thru -5.	Same
61	Q-S-1 Ques. 17-B-7	(Mathematics)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
62	Q-S-1 Ques. 17-B-8	(Science & Technical)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
63	Q-S-1 Ques. 17-B-9	(Communications)	-1. thru -5.	Same
64	Q-S-1 Ques. 17-B-10	(Management & Human Relations)	-1. thru -5.	Same
65	Q-S-1 Ques. 17-B-11	(Accounting & General Business)	-1. thru -5.	Same
66	Q-S-1 Ques. 17-C-1	Competencies felt needed by students (Equipment)	-1. thru -5.	Same
67	Q-S-1 Ques. 17-C-2	(Production)	-1. thru -5.	Same
68	Q-S-1 Ques. 17-C-3	(Materials)	-1. thru -5.	Same
69	Q-S-1 Ques. 17-C-4	(Machine & Tools)	-1. thru -5.	Same
70	Q-S-1 Ques. 17-C-5	(Drawing & Reports)	-1. thru -5.	Same
71	Q-S-1 Ques. 17-C-6	(Other Personnel)	-1. thru -5.	Same
72	Q-S-1 Ques. 17-C-7	(Mathematics)	-1. thru -5.	Same
73	Q-S-1 Ques. 17-C-8	(Science & Technical)	-1. thru -5.	Same
74	Q-S-1 Ques. 17-C-9	(Communications)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code
75	Q-S-1 Ques. 17-C-10	(Management & Human Relations)	-1. None -2. Little -3. Some -4. Great -5. Thoroughly
76	Q-S-1 Ques. 17-C-11	(Accounting & General Business)	-1. thru Same -5.

Card/Col.	Ques.		Item Detail	Code	
17	Q-S-1	Ques. 17-D-1	Competencies felt needed by students (Equipment)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
18	Q-S-1	Ques. 17-D-2	(Production)	-1. thru -5.	Same
19	Q-S-1	Ques. 17-D-3	(Materials)	-1. thru -5.	Same
20	Q-S-1	Ques. 17-D-4	(Machine & Tools)	-1. thru -5.	Same
21	Q-S-1	Ques. 17-D-5	(Drawing & Reports)	-1. thru -5.	Same
22	Q-S-1	Ques. 17-D-6	(Other Personnel)	-1. thru -5.	Same
23	Q-S-1	Ques. 17-D-7	(Mathematics)	-1. thru -5.	Same
24	Q-S-1	Ques. 17-D-8	(Science & Technical)	-1. thru -5.	Same
25	Q-S-1	Ques. 17-D-9	(Communications)	-1. thru -5.	Same
26	Q-S-1	Ques. 17-D-10	(Management & Human Relations)	-1. thru -5.	Same
27	Q-S-1	Ques. 17-D-11	(Accounting & General Business)	-1. thru -5.	Same
28	Q-S-1	Ques. 17-E-1	(Equipment)	-1. thru -5.	Same
29	Q-S-1	Ques. 17-E-2	(Production)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
30	Q-S-1 Ques. 17-E-3	Competencies felt needed by students (Materials)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
31	Q-S-1 Ques. 17-E-4	(Machine & Tools)	-1. thru -5.	Same
32	Q-S-1 Ques. 17-E-5	(Drawing & Reports)	-1. thru -5.	Same
33	Q-S-1 Ques. 17-E-6	(Other Personnel)	-1. thru -5.	Same
34	Q-S-1 Ques. 17-E-7	(Mathematics)	-1. thru -5.	Same
35	Q-S-1 Ques. 17-E-8	(Science & Technical)	-1. thru -5.	Same
36	Q-S-1 Ques. 17-E-9	(communications)	-1. thru -5.	Same
37	Q-S-1 Ques. 17-E-10	(Management & Human Relations)	-1. thru -5.	Same
38	Q-S-1 Ques. 17-E-11	(Accounting & General Business)	-1. thru -5.	Same
39	Q-S-1 Ques. 17-F-1	(Equipment)	-1. thru -5.	Same
40	Q-S-1 Ques. 17-F-2	(Production)	-1. thru -5.	Same
41	Q-S-1 Ques. 17-F-3	(Materials)	-1. thru -5.	Same
42	Q-S-1 Ques. 17-F-4	(Machine & Tools)	-1. thru -5.	Same
43	Q-S-1 Ques. 17-F-5	(Drawing & Reports)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
44	Q-S-1 Ques. 17-F-6	Competencies felt needed by students (Other Personnel)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
45	Q-S-1 Ques. 17-F-7	(Mathematics)	-1. thru -5.	Same
46	Q-S-1 Ques. 17-F-8	(Science & Technical)	-1. thru -5.	Same
47	Q-S-1 Ques. 17-F-9	(Communications)	-1. thru -5.	Same
48	Q-S-1 Ques. 17-F-10	(Management & Human Relations)	-1. thru -5.	Same
49	Q-S-1 Ques17-F-11	(Accounting & General Business)	-1. thru -5.	Same
50	Q-S-1 Ques. 17-G-1	(Equipment)	-1. thru -5.	Same
51	Q-S-1 Ques. 17-G-2	(Production)	-1. thru -5.	Same
52	Q-S-1 Ques. 17-G-3	(Materials)	-1. thru -5.	Same
53	Q-S-1 Ques. 17-G-4	(Machine & Tools)	-1. thru -5.	Same
54	Q-S-1 Ques. 17-G-5	(Drawing & Reports)	-1. thru -5.	Same
55	Q-S-1 Ques. 17-G-6	(Other Personnel)	-1. thru -5.	Same
56	Q-S-1 Ques. 17-G-7	(Mathematics)	-1. thru -5.	Same
57	Q-S-1 Ques. 17-G-8	(Science & Technical)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
58	Q-S-1 Ques. 17-G-9	Competencies felt needed by students (Communications)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
59	Q-S-1 Ques. 17-G-10	(Management & Human Relations)	-1. thru -5.	Same
60	Q-S-1 Ques. 17-G-11	(Accounting & General Business)	-1. thru -5.	Same
61	Q-S-1 Ques. 17-H-1	(Equipment)	-1. thru -5.	Same
62	Q-S-1 Ques. 17-H-2	(Production)	-1. thru -5.	Same
63	Q-S-1 Ques. 17-H-3	(Materials)	-1. thru -5.	Same
64	Q-S-1 Ques. 17-H-4	(Machine & Tools)	-1. thru -5.	Same
65	Q-S-1 Ques. 17-H-5	(Drawing & Reports)	-1. thru -5.	Same
66	Q-S-1 Ques. 17-H-6	(other Personnel)	-1. thru -5.	Same
67	Q-S-1 Ques. 17-H-7	(Mathematics)	-1. thru -5.	Same
68	Q-S-1 Ques. 17-H-8	(Science & Technical)	-1. thru -5.	Same
69	Q-S-1 Ques. 17-H-9	(Communications)	-1, thru -5.	Same
70	Q-S-1 Ques. 17-H-10	(Management) & Human Relations)	-1. thru -5.	Same
71	Q-S-1 Ques. 17-H-11	(Accounting & General Business)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
72	Q-S-1 Ques. 17-I-1	Competencies felt needed by students (Equipment)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
73	Q-S-1 Ques. 17-I-2	(Production)	-1. thru -5.	Same
74	Q-S-1 Ques. 17-I-3	(Materials)	-1. thru -5.	Same
75	Q-S-1 Ques. 17-I-4	(Machine & Tools)	-1. thru -5.	Same
76	Q-S-1 Ques. 17-I-5	(Drawing & Reports)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code
17	Q-S-1 Ques. 17-I-6	Competencies felt needed by students ((Other Personnel)	-1. None -2. Little -3. Some -4. Great -5. Thoroughly
18	Q-S-1 Ques. 17-I-7	(Mathematics)	-1. thru Same -5.
19	Q-S-1 Ques. 17-I-8	(Science & Technical)	-1. thru Same -5.
20	Q-S-1 Ques. 17-I-9	(Communications)	-1. thru Same -5.
21	Q-S-1 Ques. 17-I-10	(Management & Human Relations)	-1. thru Same -5.
22	Q-S-1 Ques. 17-I-11	(Accounting & General Business)q	-1. thru Same -5.
23	Q-S-1 Ques. 18-A-1	(Equipment)	-0. (No rate given) -1. thru Same -5.
24	Q-S-1 Ques. 18-A-2	(Production)	-1. thru Same -5.
25	Q-S-1 Ques. 18-A-3	(Materials)	-1. thru Same -5.
26	Q-S-1 Ques. 18-A-4	(Machine & Tools)	-1. thru Same -5.
27	Q-S-1 Ques. 18-A-5	(Drawing & Reports)	-1. thru Same -5.
28	Q-S-1 Ques. 18-A-6	(Other Personnel)	-1. thru Same -5.
29	Q-S-1 Ques. 18-A-7	(Mathematics)	-1. thru Same -5.

Card/Col.	Ques.	Item Detail	Code	
30	Q-S-1 Ques. 18-A-8	Competencies felt needed by students (Science & Technical)	-1. None -2. Little -3. Some -4. Great -5. Thoroughly	
31	Q-S-1 Ques. 18-A-9	(Communications)	-1. thru -5.	Same
32	Q-S-1 Ques. 18-A-10	(Management &q Human Relations)	-1. thru -5.	Same
33	Q-S-1 Ques. 18-A-11	(Accounting & General Business)	-1. thru -5.	Same
34	Q-S-1 Ques. 18-B-1	(Equipment)	-1. thru -5.	Same
35	Q-S-1 Ques. 18-B-2	(Production)	-1. thru -5.	Same
36	Q-S-1 Ques. 18-B-3	(Materials)	-1. thru -5.	Same
37	Q-S-1 Ques. 18-B-4	(Machine & Tools)	-1. thru -5.	Same
38	Q-S-1 Ques. 18-B-5	(Drawing & Reports)	-1. thru -5.	Same
39	Q-S-1 Ques. 18-B-6	(Other Personnel)	-1. thru -5.	Same
40	Q-S-1 Ques. 18-B-7	(Mathematics)	-1. thru -5.	Same
41	Q-S-1 Ques. 18-B-8	(Science & Technical)	-1. thru -5.	Same
42	Q-S-1 Ques. 18-B-9	(Communications)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
43	Q-S-1 Ques. 18-B-10	Competencies felt needed by students (Management & Human Relations)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
44	Q-S-1 Ques. 18-B-11	(Accounting & General Business)	-1. thru -5.	Same
45	Q-S-1 Ques. 18-C-1	(Equipment)	-1. thru -5.	Same
46	Q-S-1 Ques. 18-C-2	(Production)	-1. thru -5.	Same
47	Q-S-1 Ques. 18-C-3	(Materials)	-1. thru -5.	Same
48	Q-S-1 Ques. 18-C-4	(Machine & Tools)	-1. thru -5.	Same
49	Q-S-1 Ques. 18-C-5	(Drawing & Reports)	-1. thru -5.	Same
50	Q-S-1 Ques. 18-C-6	(Other Personnel)	-1. thru -5.	Same
51	Q-S-1 Ques. 18-C-7	(Mathematics)	-1. thru -5.	Same
52	Q-S-1 Ques. 18-C-8	(Science & Technical)	-1. thru -5.	Same
53	Q-S-1 Ques. 18-C-9	(Communications)	-1. thru -5.	Same
54	Q-S-1 Ques. 18-C-10	(Management & Human Relations)	-1. thru -5.	Same
55	Q-S-1 Ques. 18-C-11	(Accounting & General Business)	-1. thru -5.	Same
56	Q-S-1 Ques. 18-D-1	(Equipment)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
57	Q-S-1 Ques. 18-D-2	Competencies felt needed by students (Production)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
58	Q-S-1 Ques. 18-D-3	(Materials)	-1. thru -5.	Same
59	Q-S-1 Ques. 18-D-4	(Machine & Tools)	-1. thru -5.	Same
60	Q-S-1 Ques. 18-D-5	(Drawing & Reports)	-1. thru -5.	Same
61	Q-S-1 Ques. 18-D-6	(Other Personnel)	-1. thru -5.	Same
62	Q-S-1 Ques. 18-D-7	(Mathematics)	-1. thru -5.	Same
63	Q-S-1 Ques. 18-D-8	(Science & Technical)	-1. thru -5.	Same
64	Q-S-1 Ques. 18-D-9	(Communications)	-1. thru -5.	Same
65	Q-S-1 Ques. 18-D-10	(Management & Human Relations)	-1. thru -5.	Same
66	Q-S-1 Ques. 18-D-11	(Accounting & General Business)	-1. thru -5.	Same
67	Q-S-1 Ques. 18-E-1	(Equipment)	-1. thru -5.	Same
68	Q-S-1 Ques. 18-E-2	(Production)	-1. thru -5.	Same
69	Q-S-1 Ques. 18-E-3	(Materials)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
70	Q-S-1 Ques. 18-E-4	Competencies felt needed by students (Machine & Tools)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
71	Q-S-1 Ques. 18-E-5	(Drawing & Reports)	-1. thru -5.	Same
72	Q-S-1 Ques. 18-E-6	(Other Personnel)	-1. thru -5.	Same
73	Q-S-1 Ques. 18-E-7	(Mathematics)	-1. thru -5.	Same
74	Q-S-1 Ques. 18-E-8	(Science & Technical)	-1. thru -5.	Same
75	Q-S-1 Ques. 18-E-9	(Communications)	-1. thru -5.	Same
76	Q-S-1 Ques. 18-E-10	(Management & Human Relations)	-1. thru -5.	Same
77	Q-S-1 Ques. 18-E-11	(Accounting & General Business)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
17	Q-S-1 Ques. 18-F-1	Competencies felt needed by students (Equipment)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
18	Q-S-1 Ques. 18-F-2	(Production)	-1. thru -5.	Same
19	Q-S-1 Ques. 18-F-3	(Materials)	-1. thru -5.	Same
20	Q-S-1 Ques. 18-F-4	(Machine & Tools)	-1. thru -5.	Same
21	Q-S-1 Ques. 18-F-5	(Drawing & Reports)	-1. thru -5.	Same
22	Q-S-1 Ques. 18-F-6	(Other Personnel)	-1. thru -5.	Same
23	Q-S-1 Ques. 18-F-7	(Mathematics)	-1. thru -5.	Same
24	Q-S-1 Ques. 18-F-8	(Science & Technical)	-1. thru -5.	Same
25	Q-S-1 Ques. 18-F-9	(Communications)	-1. thru -5.	Same
26	Q-S-1 Ques. 18-F-10	(Management & Human Relations)	-1. thru -5.	Same
27	Q-S-1 Ques. 18-F-11	(Accounting & General Business)	-1. thru -5.	Same
28	Q-S-1 Ques. 18-G-1	(Equipment)	-1. thru -5.	Same
29	Q-S-1 Ques. 18-G-2	(Production)	-1. thru -5.	Same
30	Q-S-1 Ques. 18-G-3	(Materials)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
31	Q-S-1 Ques. 18-G-4	Competencies felt needed by students (Machine & Tools)	-1. None -2. Little -3. Some -4. Great -5. Thoroughly	
32	Q-S-1 Ques. 18-G-5	(Drawing & Reports)	-1. thru -5.	Same
33	Q-S-1 Ques. 18-G-6	(Other Personnel)	-1. thru -5.	Same
34	Q-S-1 Ques. 18-G-7	(Mathematics)	-1. thru -5.	Same
35	Q-S-1 Ques. 18-G-8	(Science & Technical)	-1. thru -5.	Same
36	Q-S-1 Ques. 18-G-9	(Communications)	-1. thru -5.	Same
37	Q-S-1 Ques. 18-G-10	(Management & Human Relations)	-1. thru -5.	Same
38	Q-S-1 Ques. 18-G-11	(Accounting & General Business)	-1. thru -5.	Same
39	Q-S-1 Ques. 18-H-1	(Equipment)	-1. thru -5.	Same
40	Q-S-1 Ques. 18-H-2	(Production)	-1. thru -5.	Same
41	Q-S-1 Ques. 18-H-3	(Materials)	-1. thru -5.	Same
42	Q-S-1 Ques. 18-H-4	(Machine & Tools)	-1. thru -5.	Same
43	Q-S-1 Ques. 18-H-5	(Drawing & Reports)	-1. thru -5.	Same

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Card/Col.	Ques.	Item Detail	Code	
44	Q-S-1 Ques. 18-H-6	Competencies felt needed by students (Other Personnel)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
45	Q-S-1 Ques. 18-H-7	(Mathematics)	-1. thru -5.	Same
46	Q-S-1 Ques. 18-H-8	(Science & Technical)	-1. thru -5.	Same
47	Q-S-1 Ques. 18-H-9	(Communications)	-1. thru -5.	Same
48	Q-S-1 Ques. 18-H-10	(Management & Human Relations)	-1. thru -5.	Same
49	Q-S-1 Ques. 18-H-11	(Accounting & General Business)	-1. thru -5.	Same
50	Q-S-1 Ques. 18-I-1	(Equipment)	-1. thru -5.	Same
51	Q-S-1 Ques. 18-I-2	(Production)	-1. thru -5.	Same
52	Q-S-1 Ques. 18-I-3	(Materials)	-1. thru -5.	Same
53	Q-S-1 Ques. 18-I-4	(Machine & Tools)	-1. thru -5.	Same
54	Q-S-1 Ques. 18-I-5	(Drawing & Reports)	-1. thru -5.	Same
55	Q-S-1 Ques. 18-I-6	(Other Personnel)	-1. thru -5.	Same
56	Q-S-1 Ques. 18-I-7	(Mathematics)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code	
57	Q-S-1 Ques. 18-I-8	Competencies felt needed by students (Science & Technical)	-1. -2. -3. -4. -5.	None Little Some Great Thoroughly
58	Q-S-1 Ques. 18-I-9	(Communications)	-1. thru -5.	Same
59	Q-S-1 Ques. 18-I-10	(Management & Human Relations)	-1. thru -5.	Same
60	Q-S-1 Ques. 18-I-11	(Accounting & General Business)	-1. thru -5.	Same

Card/Col.	Ques.	Item Detail	Code

1st 10 Col's. SAME as Management Card 1

Card/Col.	Ques.	Item Detail	Code	
11	None	Deck No.	Deck 2	
12	None	Card No.	Card 9	
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received
17	Q-S-II Ques. 1	Youth Commiting	-1. County -2. Country town -3. City -4. City Suburb	
18	Q-S-II Ques. 2	Recent Residence	-1. -2. -3. Same -4.	
20	Q-S-II Ques. 3	Age	-00 Record to actual -99 age	
21	Q-S-II Ques. 4	Marital Status	-1. Divorce -2. Seperated -3. Widowed -4. Single -5. Married	
22,23	Q-S-II Ques. 5	Children (No. of)	-00 None -01. Record thru actual 10 number	
24,25	Q-S-1 Ques. 6	Salary (Self)	-01. 6,000-6,999 -02. 7,000-7,999 -03. 8,000-8,999 -04. 9,000-9,999 -05. 10,000-10,999	
26,27	Q-S-II Ques. 7	Salary (Spouse)	-1. Less than 1,000 -2. 1,000-1,999 -3. 2,000-2,999 -4. 3,000-3,999 -5. 4,000-4,999	
28,29	Q-S-II Ques. 6 & 7	Salary (Combined)	-1. 6,000-6,999 -2. 7,000-7,999 -3. 8,000-8,999 -4. 9,000-9,999 -5. 10,000-10,999	
30	Q-S-II Ques. 8	Religion (Adherence)	-1. Protestant -2. Catholic -3. Jewish -4. None -5. Other	

Card/Col.	Ques.	Item Detail	Code
31	Q-S-II Ques. 9	Religion (Importance)	-1. No religion -2. Not very important -3. Fairly important -4. Very Important
32	Q-S-II Ques. 10	Personalism (Job-amount)	-1. None -2. Less than 25% -3. Between 25-50% -4. Between 50-75% -5. More than 75%
33	Q-S-II Ques. 11	Personalism (Job-importance)	-1. Not important -2. Not very important -3. Fairly important -4. Very important
34	Q-S-II Ques. 12	Education (Amount)	-1. Less than 8 -2. 8-12 years -3. 12 (grade) -4. Techn school -5. Junior College or 1 yr. -6. Two years univ. -7. Three -8. Four years (grad.) -9. Adv. degree
35	Q-S-II Ques. 13	Residency (Change)	-1. None -2. One -3. 2-3 times -4. 4-6 times -5. 7-10 times -6. Over 10 times
36	Q-S-II Ques. 14	Job (Change)	-1. None -2. 1 time -3. 2-3 times -4. 4-6 times -5. 7-10 times -6. Over 10 times
37,38	Q-S-II Ques. 15	Occupation (Catagory)	-1. -2. Devise code later -3. etc. -7. Same one on Card 1 Col. 6,7
39	Q-S-II Ques. 16	Religion (Observance)	-1. No religion -2. Seldom -3. Sometimes -4. Usually -5. Almost always
40	Q-S-II Ques. 17	Change (Health)	-1. Probably not -2. No -3. Maybe -4. Yes

Card/Col.	Ques.	Item Detail	Code	
41	Q-S-II Ques. 18	Change (Child rearing)	-1. -2. -3. -4.	Strongly disagree Slightly disagree Slightly agree Strongly agree
42	Q-S-II Ques. 19	Change (Birth Control)	-1. -2. -3. -4.	Always right Probably O.K. Usually wrong Always wrong
43	Q-S-II Ques. 20	Change (Automation	-1. -2. -3. -4.	Disagree strongly Slightly disagree Agree Strongly Agree Slightly
44	Q-S-II Ques. 21	Change (Pol. Leaders)	-1. -2. -3. -4.	Strongly disagree Slightly disagree Slightly disagree Strongly agree
45	Q-S-II Ques. 22	Aid-education (Local)	-1. -2. -3. -4.	Strongly disagree Slightly disagree Slightly agree Strongly agree
46	Q-S-II Ques. 23	Aid-Education (Federal)	-1. -2. -3. -4.	 Same
47	Q-S-II Ques. 24	Education (Planning)	-1. -2. -3.	Parents Local Government National Government
48	Q-S-II Ques. 25	Change (Self)	-1. -2. -3. -4.	Very difficult Slightly difficult Somewhat easy Very easy
49	Q-S-II Ques. 26	Change (Role adherence)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly
50	Q-S-II Ques. 27	Job (Routine)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly
51	Q-S-II Ques. 28	Future Orient. (Planning)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly

Card/Col.	Question	Item Detail	Code	
52	Q-S-II Ques. 29	Happiness (Requisites for)	-1.	Nothing
			-2.	More money
			-3.	More friends
			-4.	Better Job
			-5.	Good Health
			-6.	Other
			-7.	3,4,5
			-8.	2,4,5
			-9.	5,6
53	Q-S-II Ques. 30	Happiness (Possibilities future)	-1.	Nothing
			-2.	More money
			-3.	More friends
			-4.	Better Job
			-5.	Good Health
			-6.	Other
			-7.	3,4,5
			-8.	2,4,5
			-9.	Golden Rule-Education
54	Q-S-II Ques. 31-A	Elem Schools	-1.	Poor
			-2.	Fair
			-3.	Good
			-4.	Excellent
55	Q-S-II Ques. 31-B	Sec. Schools	-1. thru -4.	Same
56	Q-S-II Ques. 31-C	Universities	-1. thru -4.	Same
57	Q-S-II Ques. 31-D	Businessmen	-1. thru -4.	Same
58	Q-S-II Ques. 31-E	Labor	-1. thru -4.	Same
59	Q-S-II Ques. 31-F	Local government	-1. thru -4.	Same
60	Q-S-II Ques. 31-G	National government	-1. thru -4.	Same
61	Q-S-II Ques. 31-H	Health Services	-1. thru -4.	Same
62	Q-S-II Ques. 31-I	Churches	-1. thru -4.	Same

TEACHER CODE BOOK

CODE BOOK

STUDENT, TEACHER, AND MANAGEMENT EVALUATIONS OF THE BENTON
HARBOR/ST. JOSEPH INDUSTRIAL MANAGEMENT TRAINING PROGRAM

TEACHER FORM

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code 0 or 00 will always mean Not Applicable or Nothing, except as noted.

2. Code ± for a one column no response, or -9 for a two column no response, or -99 for a three column no respons will mean there was No Information or Respondent did not answer.

3. In each case the following pages the column to the left contains the column number of the IBM card; the second column contains the question number from the questionnaire; the third column (item detail) contains the code within each column of the IBM card with an explanation of the code.

4. Coder instructions always follow a line across the page and are clearly indicated.

5. In some cases when codes are equal to others already used, they are not repeated each time, but reference is made to a previous code or the immediately previous code with "same."

6. Under Code, the first number is the questionnaire question alternative and the second number is the actual code which is entered on the data sheets (i.e., 1-4; one (1) is the questionnaire question alternative and 4 is the code).

Card/Col.	Question	Item Detail	Code
1st 10 Col's SAME as Student Card 1			
11	None	Deck No.	-3.Deck 3 (Teacher)
12	None	Card No.	-1 Card 1
13-16	None	Respondent No.	-0001 Number respondents to consecutively by groups -9999 as received
17	Q-T-I Ques. 1	Experience with IMTP	-1. Instructor -2. Taken courses -3. Coordinator -4. Company placement -5. Adm. Board -6. 1 & 3 -7. 1 & 4 -8. All -9. 1,2,4,5
18	Q-T-I Ques. 2-1	Course No. 1 (Taken)	-1. Yes -2. No
19	Q-T-I Ques. 2-1	Course No. 1 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
20	Q-T-I Ques. 2-1	Course No. 1 Teacher Effectiveness	-1. Poor -2. Average -3. Good
21	Q-T-I Ques. 2-1	Course No. 1 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
22	Q-T-I Ques. 2-2	Course No. 2 (Taken)	-1. Yes -2. No
23	Q-T-I Ques. 2-2	Course No. 2 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
24	Q-T-I Ques. 2-2	Course No. 2 Teacher Effectiveness	-1. Poor -2. Average -3. Good

INSTRUCTIONS TO CODER

Each course in question 2 takes 4 columns. The first column designates whether respondent took the course; the second column how he "felt" about subject matter; the third column "teacher effectiveness"; and the fourth column "benefit to job."

Card/Col.	Question	Item Detail	Code	
25	Q-T-I Ques. 2-2	Course No. 2 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
26	Q-T-I Ques. 2-3	Course No. 3 (Taken)	-1. -2.	Yes No
27	Q-T-I Ques. 2-3	Course No. 3 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
28	Q-T-I Ques. 2-3	Course No. 3 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
29	Q-T-I Ques. 2-3	Course No. 3 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-T-I Ques. 2-4	Course No. 4 (Taken)	-1. -2.	Yes No
31	Q-T-I Ques. 2-4	Course No. 4 Subject Matter (Development	-1. -2. -3.	Poor Moderate Well
32	Q-T-I Ques. 2-4	Course No. 4 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
33	Q-T-I Ques. 2-4	Course No. 4 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
34	Q-T-I Ques. 2-5	Course No. 5 (Taken)	-1. -2.	Yes No
35	Q-T-I Ques. 2-5	Course No. 5 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
36	Q-T-I Ques. 2-5	Course No. 5 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
37	Q-T-I Ques. 2-5	Course No. 5 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
38	Q-T-I Ques. 2-6	Course No. 6 (Taken)	-1. -2.	Yes No

Card/Col.	Question	Item Detail	Code	
39	Q-T-I Ques. 2-6	Course No. 6 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
40	Q-T-I Ques. 2-6	Course No. 6 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
41	Q-T-I Ques. 2-6	Course No. 6 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
42	Q-T-I Ques. 2-7	Course No. 7 (Taken)	-1. -2.	Yes No
43	Q-T-I Ques. 2-7	Course No. 7 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
44	Q-T-I Ques. 2-7	Course No. 7 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
45	Q-T-I Ques. 2-7	Course No. 7 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
46	Q-T-I Ques. 2-8	Course No. 8 (Taken)	-1. -2.	Yes No
47	Q-T-I Ques. 2-8	Course No. 8 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
48	Q-T-I Ques. 2-8	Course No. 8 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
49	Q-T-I Ques. 2-8	Course No. 8 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
50	Q-T-I Ques. 2-9	Course No. 9 (Taken)	-1. -2.	Yes No
51	Q-T-I Ques. 2-9	Course No. 9 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
52	Q-T-I Ques. 2-9	Course No. 9 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good

Card/Col.	Question	Item Detail	Code	
53	Q-T-I Ques. 2-9	Course No. 9 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
54	Q-T-I Ques. 2-10	Course No. 10 (Taken)	-1. -2.	Yes No
55	Q-T-I Ques. 2-10	Course No. 10 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
56	Q-T-I Ques. 2-10	Course No. 10 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
57	Q-T-I Ques. 2-10	Course No. 10 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
58	Q-T-I Ques. 2-11	Course No. 11 (Taken)	-1. -2.	Yes No
59	Q-T-I Ques. 2-11	Course No. 11 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
60	Q-T-I Ques. 2-11	Course No. 11 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
61	Q-T-I Ques. 2-11	Course No. 11 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
62	Q-T-I Ques. 2-12	Course No. 12 (Taken)	-1. -2.	Yes No
63	Q-T-I Ques. 2-12	Course No. 12 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
64	Q-T-I Ques. 2-12	Course No. 12 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
65	Q-T-I Ques. 2-12	Course No. 12 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
66	Q-T-I Ques. 2-13	Course No. 13 (Taken)	-1. -2.	Yes No

Card/Col.	Question	Item Detail	Code	
67	Q-T-I Ques. 2-13	Course No. 13 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
68	Q-T-I Ques. 2-13	Course No. 13 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
69	Q-T-I Ques. 2-13	Course No. 13 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
70	Q-T-I Ques. 2-14	Course No. 14 (Taken)	-1. -2.	Yes No
71	Q-T-I Ques. 2-14	Course No. 14 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
72	Q-T-I Ques. 2-14	Course No. 14 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
73	Q-T-I Ques. 2-14	Course No. 14 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code

1st 10 Col's <u>SAME</u> as Student Card 1

Card/Col.	Question	Item Detail	Code
11	None	Deck No.	-3. Deck 3 (Teacher)
12	None	Card No.	-1. Card 2
13-16	None	Respondent No.	-0001 Number resp ndents to consecutively by groups -9999 as received.
17	Q-T-I Ques. 2-15	Experience with IMTP	-1. Instructor -2. Taken Courses -3. Coordinator -4. Company placement -5. Adm. Board -6. 1 & 3 -7. 1 & 4 -8. All -9. 1, 2, 4, 5
18	Q-T-I Ques. 2-15	Course No. 15 (Taken)	-1. Yes -2. No
19	Q-T-I Ques. 2-15	Course No. 15 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
20	Q-T-I Ques. 2-15	Course No. 15 Teacher Effec- tiveness	-1. Poor -2. Average -3. Good
21	Q-T-I Ques. 2-15	Course No. 15 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
22	Q-T-I Ques. 2-16	Course No. 16 (Taken)	-1. Yes -2. No
23	Q-T-I Ques. 2-16	Course No. 16 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
24	Q-T-I Ques. 2-16	Course No. 16 Teacher Effec- tiveness	-1. Poor -2. Average -3. Good
25	Q-T-I Ques. 2-16	Course No. 16 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
26	Q-T-I Ques. 2-17	Course No. 17 (Taken)	-1. Yes -2. No

Card/Col.	Question	Item Detail	Code	
27	Q-T-I Ques. 2-17	Course No. 17 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
28	Q-T-I Ques. 2-17	Course No. 17 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
29	Q-T-I Ques. 2-17	Course No. 17 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-T-I Ques. 2-18	Course No. 18 (Taken)	-1. -2.	Yes No
31	Q-T-I Ques. 2-18	Course No. 18 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
32	Q-T-I Ques. 2-18	Course No. 18 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
33	Q-T-I Ques. 2-18	Course No. 18 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
34	Q-T-I Ques. 2-19	Course No. 19 (Taken)	-1. -2.	Yes No
35	Q-T-I Ques. 2-19	Course No. 19 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
36	Q-T-I Ques. 2-19	Course No. 19 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
37	Q-T-I Ques. 2-19	Course No. 19 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
38	Q-T-I Ques. 2-20	Course No. 20 (Taken)	-1. -2.	Yes No
39	Q-T-I Ques. 2-20	Course No. 20 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
40	Q-T-I Ques. 2-20	Course No. 20 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good

Card/Col.	Question	Item Detail	Code	
41	Q-T-I Ques. 2-20	Course No. 20 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
42	Q-T-I Ques. 2-21	Course No. 21 (Taken)	-1. -2.	Yes No
43	Q-T-I Ques. 2-21	Course No. 21 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
44	Q-T-I Ques. 2-21	Course No. 21 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
45	Q-T-I Ques. 2-21	Course No. 21 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
46	Q-T-I Ques. 2-22	Course No. 22 (Taken)	-1. -2.	Yes No
47	Q-T-I Ques. 2-22	Course No. 22 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
48	Q-T-I Ques. 2-22	Course No. 22 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
49	Q-T-I Ques. 2-22	Course No. 22 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
50	Q-T-I Ques. 2-23	Course No. 23 (Taken)	-1. -2.	Yes No
51	Q-T-I Ques. 2-23	Course No. 23 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Moderate
52	Q-T-I Ques. 2-23	Course No. 23 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
53	Q-T-I Ques. 2-23	Course No. 23 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
54	Q-T-I Ques. 2-24	Course No. 24 (Taken)	-1. -2.	Yes No

Card/Col.	Question	Item Detail	Code	
55	Q-T-I Ques. 2-24	Course No. 24 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
56	Q-T-I Ques. 2-24	Course No. 24 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
57	Q-T-I Ques. 2-24	Course No. 24 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
58	Q-T-I Ques. 2-25	Course No. 25 (Taken)	-1. -2.	Yes No
59	Q-T-I Ques. 2-25	Course No. 25 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
60	Q-T-I Ques. 2-25	Course No. 25 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
61	Q-T-I Ques. 2-25	Course No. 25 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
62	Q-T-I Ques. 2-26	Course No. 26 (Taken)	-1. -2.	Yes No
63	Q-T-I Ques. 2-26	Course No. 26 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
64	Q-T-I Ques. 2-26	Course No. 26 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
65	Q-T-I Ques. 2-26	Course No. 26 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
66	Q-T-I Ques. 2-27	Course No. 27 (Taken)	-1. -2.	Yes No
67	Q-T-I Ques. 2-27	Course No. 27 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
68	Q-T-I Ques. 2-27	Course No. 27 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good

Card/Col.	Question	Item Detail	Code	
69	Q-T-I Ques. 2-27	Course No. 27 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
70	Q-T-I Ques. 2-28	Course No. 28 (Taken)	-1. -2.	Yes No
71	Q-T-I Ques. 2-28	Course No. 28 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
72	Q-T-I Ques. 2-28	Course No. 28 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
73	Q-T-I Ques. 2-28	Course No. 28 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
74	Q-T-I Ques. 2-29	Course No. 29 (Taken)	-1. -2.	Yes No
75	Q-T-I Ques. 2-29	Course No. 29 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
76	Q-T-I Ques. 2-29	Course No. 29 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
77	Q-T-I Ques. 2-29	Course No. 29 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code

1st 10 Col's <u>SAME</u> as Student Card 1

Card/Col.	Question	Item Detail	Code
11	None	Deck No.	-3. Deck 3 (Teacher)
12	None	Card No.	-1. Card 3
13-16	None	Respondent No.	-0001. Number respondents to -9999 consecutively by groups as received.
17	Q-T-I Ques. 1	Experience with IMTP	-1. Instructor -2. Taken Courses -3. Coordinator -4. Company placement -5. Adm. Board -6. 1-3 -7. 1-4 -8. All -9. 1, 2, 4, 5
18	Q-T-I Ques. 2-30	Course No. 30 (Taken)	-1. Yes -2. No
19	Q-T-I Ques. 2-30	Course No. 30 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
20	Q-T-I Ques. 2-30	Course No. 30 Teacher Effec-tiveness	-1. Poor -2. Average -3. Good
21	Q-T-I Ques. 2-30	Course No. 30 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
22	Q-T-I Ques. 2-31	Course No. 31 (Taken)	-1. Yes -2. No
23	Q-T-I Ques. 2-31	Course No. 31 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
24	Q-T-I Ques. 2-31	Course No. 31 Teacher Effec-tiveness	-1. Poor -2. Average -3. Good
25	Q-T-I Ques. 2-31	Course No. 31 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
26	Q-T-I Ques. 2-32	Course No. 32 (Taken)	-1. Yes -2. No
27	Q-T-I Ques. 2-32	Course No. 32 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well

Card/Col.	Question	Item Detail	Code	
28	Q-T-I Ques. 2-32	Course No. 32 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
29	Q-T-I Ques. 2-32	Course No. 32 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-T-I Ques. 2-33	Course No. 33 (Taken)	-1. -2.	Yes No
31	Q-T-I Ques. 2-33	Course No. 33 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
32	Q-T-I Ques. 2-33	Course No. 33 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
33	Q-T-I Ques. 2-33	Course No. 33 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
34	Q-T-I Ques. 2-34	Course No. 34 (Taken)	-1. -2.	Yes No
35	Q-T-I Ques. 2-34	Course No. 34 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
36	Q-T-I Ques. 2-34	Course No. 34 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
37	Q-T-I Ques. 2-34	Course No. 34 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
38	Q-T-I Ques. 2-35	Course No. 35 (Taken)	-1. -2.	Yes No
39	Q-T-I Ques. 2-35	Course No. 35 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
40	Q-T-I Ques. 2-35	Course No. 35 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
41	Q-T-I Ques. 2-35	Course No. 35 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code	
42	Q-T-I Ques. 2-36	Course No. 36 (Taken)	-1. -2.	Yes No
43	Q-T-I Ques. 2-36	Course No. 36 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
44	Q-T-I Ques. 2-36	Course No. 36 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
45	Q-T-I Ques. 2-36	Course No. 36 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
46	Q-T-I Ques. 2-37	Course No. 37 (Taken)	-1. -2.	Yes No
47	Q-T-I Ques. 2-37	Course No. 37 Subject Matter	-1. -2. -3.	Poor Moderate Well
48	Q-T-I Ques. 2-37	Course No. 37 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
49	Q-T-I Ques. 2-37	Course No. 37 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
50	Q-T-I Ques. 2-38	Course No. 38 (Taken)	-1. -2.	Yes No
51	Q-T-I Ques. 2-38	Course No. 38 (Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
52	Q-T-I Ques. 2-38	Course No. 38 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
53	Q-T-I Ques. 2-38	Course No. 38 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
54	Q-T-I Ques. 2-39	Course No. 39 (Taken)	-1. -2.	Yes No
55	Q-T-I Ques. 2-39	Course No. 39 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Question	Item Detail	Code	
56	Q-T-I Ques. 2-39	Course No. 39 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
57	Q-T-I Ques. 2-39	Course No. 39 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
58	Q-T-I Ques. 2-40	Course No. 40 (Taken)	-1. -2.	Yes No
59	Q-T-I Ques. 2-40	Course No. 40 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
60	Q-T-I Ques. 2-40	Course No. 40 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
61	Q-T-I Ques. 2-40	Course No. 40 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
62	Q-T-I Ques. 2-41	Course No. 41 (Taken)	-1. -2.	Yes No
63	Q-T-I Ques. 2-41	Course No. 41 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
64	Q-T-I Ques. 2-41	Course No. 41 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
65	Q-T-I Ques. 2-41	Course No. 41 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
66	Q-T-I Ques. 2-42	Course No. 42 (Taken)	-1. -2.	Yes No
67	Q-T-I Ques. 2-42	Course No. 42 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
68	Q-T-I Ques. 2-42	Course No. 42 Teacher Effectiveness	-1. -2. -3.	Poor Average Good
69	Q-T-I Ques. 2-42	Course No. 42 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code	
70	Q-T-I Ques. 2-43	Course No. 43 (Taken)	-1. -2.	Yes No
71	Q-T-I Ques. 2-43	Course No. 43 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
72	Q-T-I Ques. 2-43	Course No. 43 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
73	Q-T-I Ques. 2-43	Course No. 43 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
74	Q-T-I Ques. 2-44	Course No. 44 (Taken)	-1. -2.	Yes No
75	Q-T-I Ques. 2-44	Course No. 44 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
76	Q-T-I Ques. 2-44	Course No. 44 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
77	Q-T-I Ques. 2-44	Course No. 44 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code

1st 10 Col's <u>SAME</u> as Student Card 1

Card/Col.	Question	Item Detail	Code
11	None	Deck No.	-3. Deck 3 (Teacher)
12	None	Card No.	-1. Card 4
13-16	None	Respondent No.	-0001 Number respondents to consecutively by groups -9999 as received
17	Q-T-I Ques. 1	Experience with IMTP	-1. Instructor -2. Taken Courses -3. Coordinator -4. Company placement -5. Adm. Board -6. 1-3 -7. 1-4 -8. All -9. 1, 2, 4, 5
18	Q-T-I Ques. 45	Course No. 45 (Taken)	-1. Yes -2. No
19	Q-T-I Ques. 45	Course No. 45 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
20	Q-T-I Ques. 45	Course No. 45 Teacher Effectiveness	-1. Poor -2. Average -3. Good
21	Q-T-I Ques. 45	Course No. 45 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
22	Q-T-I Ques. 46	Course No. 46 (Taken)	-1. Yes -2. No
23	Q-T-I Ques. 46	Course No. 46 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
24	Q-T-I Ques. 46	Course No. 46 Teacher Effectiveness	-1. Poor -2. Average -3. Good
25	Q-T-I Ques. 46	Course No. 46 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
26	Q-T-I Ques. 47	Course No. 47 (Taken)	-1. Yes -2. No
27	Q-T-I Ques. 47	Course No. 47 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well

Card/Col.	Question	Item Detail	Code	
28	Q-T-I Ques. 47	Course No. 47 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
29	Q-T-I Ques. 47	Course No. 47 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-T-I Ques. 48	Course No. 48 (Taken)	-1. -2.	Yes No
31	Q-T-I Ques. 48	Course No. 48 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
32	Q-T-I Ques. 2-48	Course No. 48 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
33	Q-T-I Ques. 2-48	Course No. 48 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
34	Q-T-I Ques. 2-49	Course No. 49 (Taken)	-1. -2.	Yes No
35	Q-T-I Ques. 2-49	Course No. 49 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
36	Q-T-I Ques. 2-49	Course No. 49 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
37	Q-T-I Ques. 2-49	Course No. 49 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
38	Q-T-I Ques. 2-50	Course No. 50 (Taken)	-1. -2.	Yes No
39	Q-T-I Ques. 2-50	Course No. 50 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
40	Q-T-I Ques. 2-50	Course No. 50 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
41	Q-T-I Ques. 2-50	Course No. 50 Benefit toJob	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code	
42	Q-T-I Ques. 2-51	Course No. 51 (Taken)	-1. -2.	Yes No
43	Q-T-I Ques. 2-51	Course No. 51 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
44	Q-T-I Ques. 2-51	Course No. 51 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
45	Q-T-I Ques. 2-51	Course No. 51 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
46	Q-T-I Ques. 2-52	Course No. 52 (Taken)	-1. -2.	Yes No
47	Q-T-I Ques. 2-52	Course No. 52 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
48	Q-T-I Ques. 2-52	Course No. 52 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
49	Q-T-I Ques. 2-52	Course No. 52 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
50	Q-T-I Ques. 2-53	Course No. 52 (Taken)	-1. -2.	Yes No
51	Q-T-I Ques. 2-53	Course No. 53 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
52	Q-T-I Ques. 2-53	Course No. 53 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
53	Q-T-I Ques. 2-53	Course No. 53 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
54	Q-T-I Ques. 2-54	Course No. 54 (Taken)	-1. -2.	Yes No
55	Q-T-I Ques. 2-54	Course No. 54 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well

Card/Col.	Question	Item Detail	Code	
56	Q-T-I Ques. 2-54	Course No. 54 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
57	Q-T-I Ques. 2-54	Course No. 54 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
58	Q-T-I Ques. 2-55	Course No. 55 (Taken)	-1. -2.	Yes No
59	Q-T-I Ques. 2-55	Course No. 55 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
60	Q-T-I Ques. 2-55	Course No. 55 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
61	Q-T-I Ques. 2-55	Course No. 55 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
62	Q-T-I Ques. 2-56	Course No. 56 (Taken)	-1. -2.	Yes No
63	Q-T-I Ques. 2-56	Course No.56 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
64	Q-T-I Ques. 2-56	Course No. 56 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
65	Q-T-I Ques. 2-56	Course No. 56 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
66	Q-T-I Ques. 2-57	Course No. 57 (Taken)	-1. -2.	Yes No
67	Q-T-I Ques. 2-57	Course No. 57 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Well
68	Q-T-I Ques. 2-57	Course No. 57 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
69	Q-T-I Ques. 2-57	Course No. 57 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code	
70	Q-T-I Ques. 2-58	Course No. 58 (Taken)	-1. -2.	Yes No
71	Q-T-I Ques. 2-58	Course No. 58 Subject Matter (Development)	-1. -2. -3.	Poor Moderate Good
72	Q-T-I Ques. 2-58	Course No. 58 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
73	Q-T-I Ques. 2-58	Course No. 58 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
74	Q-T-I Ques. 2-59	Course No. 59 (Taken)	-1. -2.	Yes No
75	Q-T-I Ques. 2-59	Course No. 59 Subject Matter	-1. -2. -3.	Poor Moderate Well
76	Q-T-I Ques. 2-59	Course No. 59 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
77	Q-T-I Ques. 2-59	Course No. 59 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful

Card/Col.	Question	Item Detail	Code

1st 10 Col's **SAME** as Student Card 1

Card/Col.	Question	Item Detail	Code
11	None	Deck No.	-3. Deck 3 (Teacher)
12	None	Card No.	-1. Card 5
13-16	None	Respondent No.	-0001 Number respondents to consecutively by groups -9999 as received.
17	Q-T-I Ques. 1	Experience with IMTP	-1. Instructor -2. Taken Courses -3. Coordinator -4. Company placement -5. Adm. Board -6. 1 & 3 -7. 1 & 4 -8. All -9. 1, 2, 4, 5
18	Q-T-I Ques. 2-60	Course No. 60 (Taken)	-1. Yes -2. No
19	Q-T-I Ques. 2-60	Course No. 60 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
20	Q-T-I Ques. 2-60	Course No. 60 Teacher Effectiveness	-1. Poor -2. Average -3. Good
21	Q-T-I Ques. 2-60	Course No. 60 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
22	Q-T-I Ques. 2-61	Course No. 61 (Taken)	-1. Yes -2. No
23	Q-T-I Ques. 2-61	Course No. 61 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well
24	Q-T-I Ques. 2-61	Course No. 61 Teacher Effectiveness	-1. Poor -2. Average -3. Good
25	Q-T-I Ques. 2-61	Course No. 61 Benefit to Job	-1. Not Helpful -2. Somewhat Helpful -3. Very Helpful
26	Q-T-I Ques. 2-62	Course No. 62 (Taken)	-1. Yes -2. No
27	Q-T-I Ques. 2-62	Course No. 62 Subject Matter (Development)	-1. Poor -2. Moderate -3. Well

Card/Col.	Question	Item Detail	Code	
28	Q-T-I Ques. 2-62	Course No. 62 Teacher Effec- tiveness	-1. -2. -3.	Poor Average Good
29	Q-T-I Ques. 2-62	Course No. 62 Benefit to Job	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
30	Q-T-I Ques. 3	Course Perceived student (rating)	-1. -2. -3.	Not Helpful Somewhat Helpful Very Helpful
31	Q-T-I Ques. 4	Courses (self-rating)	-1. -2. -3.	Content-inadequate Content-fair Content-good
32	Q-T-I Ques. 5	Tuition (Company payment policy)	-1. -2. -3. -4.	None Less than 50 More than 50 All
33	Q-T-I Ques. 6	Tuition (Payment policy agreement)	-1. -2. -3. -4.	None Less than 5% More than 50% All
34	Q-T-I Ques. 7	Classroom Facilities	-1. -2. -3. -4.	OK as is Central facility Industrial more 2 & 3
35	Q-T-I Ques. 8	Class Time	-1. -2. -3. -4. -5.	Too late Time OK Wrong day Day OK Time & day OK
36	Q-T-I Ques. 9	Night Shift	-1. -2.	Yes No
37	Q-T-I Ques. 10	Taught (Reason for)	-1. -2. -3. -4. -5.	None Pressured Enjoy Salary 3 & 4
38,39	Q-T-I Ques. 11	Courses (Specific needs as listed by teachers, see folders for lists.)	-01. -02. -03. -04. -05. -06. -07. -08. -09. -10.	

Card/Col.	Question	Item Detail	Code	
40	Q-T-I Ques. 12	Adm. of IMTP	-1. -2. -3. -4. -5.	As is By industry L.M.C. No opinion Other
41	Q-T-I Ques. 13	Courses (Types)	-1. -2. -3. -4. -5. -6. -7. -8. -9.	Pre supervisor Foreman Middle Management Top Management Technicians Engineering Mgt. type courses Technician-type All
42	Q-T-I Ques. 14	Course (Admittance to)	-1. -2. -3. -4. -5. -6.	Company sponsored Company - anyone Public-at-large 1 & 2 2 & 3 1, 2 & 3
43	Q-T-I Ques. 15	College Credit	-1. -2. -3. -4. -5. -6. to -9.	No credit College credit College degree No opinion Credit or no credit 3 & 5

Card/Col.	Question	Item Detail	Code
		Part II	
1st 10 Col's **SAME** as Student Card 1			
11	None	Deck No.	-2. Deck 2 (Student)
12	None	Card No.	-9 Card 9
13-16	None	Respondent No.	-0001 Number respondents to consecutively by groups -9999 as received
17	Q-T-II Ques. 1	Youth Commiting	-1. County -2. Country town -3. City -4. City Suburb
18	Q-T-I Ques. 2	Recent Residence	-1. -2. -3. Same -4.
19,20	Q-T-II Ques. 3	Age	-00 Record to actual -99 age
21	Q-T-I Ques. 4	Marital Status	-1. Divorce -2. Seperated -3. Widowed -4. Single -5. Married
22,23	Q-T-I Ques. 5	Children (No. of)	-00 None -01. Record thru actual -10 number

Card/Col.	Question	Item Detail	Code	
24,25	Q-T-II Ques. 6	Salary (Self)	-01.	6,000-6,999
			-02.	7,000-7,999
			-03.	8,000-8,999
			-04.	9,000-9,999
			-05.	10,000-10,999
			-06.	11,000-11,999
			-07.	12,000-12,999
			-08.	13,000-13,999
			-09.	14,000-14,999
			-10.	15,000-15,999
			-11.	16,000-16,999
			-12.	17,000-17,999
			-13.	18,000-18,999
			-14.	19,000-19,999
			-15.	20,000-20,999
			-16.	21,000-21,999
			-17.	22,000-22,999
			-18.	23,000-23,999
			-19.	24,000-24,999
			-20.	25,000-25,999
			-21.	26,000-26,999
			-22.	27,000-27,999
			-23.	28,000-28,999
			-24.	29,000-29,999
26,27	Q-T-II Ques. 7	Salary (Spouse)	-01.	Less than 1,000
			-02.	1,000-1,999
			-03.	2,000-2,999
			-04.	3,000-3,999
			-05.	4,000-4,999
			-06.	5,000-5,999
28,29	Q-T-II Ques. 6 & 7	Salary (Combined)	-01. to -24.	Same as Col. 24,25 above
30	Q-T-II Ques. 8	Religion (Adherence)	-1. -2. -3. -4. -5.	Protestant Catholic Jewish None Other
31	Q-T-II Ques. 9	Religion (Importance)	-1. -2. -3. -4.	No religion Not very important Fairly important Very Important
32	Q-T-II Ques. 10	Personalism (Job-amount)	-1. -2. -3. -4. -5.	None Less than 25% Between 25-50% Between 50-75% More than 75%

Card/Col.	Question	Item Detail	Code	
33	Q-T-II Ques. 11	Personalism (Job-importance)	-1.	Not important
			-2.	Not very important
			-3.	Fairly important
			-4.	Very important
34	Q-T-II Ques. 12	Education (Amount)	-1.	Less than 8
			-2.	8-12 years
			-3.	12 (grade)
			-4.	Techn school
			-5.	Junior College or 1 yr.
			-6.	Two years univ.
			-7.	Three
			-8.	Four years (grad.)
			-9.	Adv. degree
35	Q-T-II Ques. 13	Residency (Change)	-1.	None
			-2.	One
			-3.	2-3 times
			-4.	4-6 times
			-5.	7-10 times
			-6.	Over 10 times
36	Q-T-II Ques. 14	Job (Change)	-1.	None
			-2.	1 time
			-3.	2-3 times
			-4.	4-6 times
			-5.	7-10 times
			-6.	Over 10 times
37,38	Q-T-II Ques. 15	Occupation (Catagory)	-1.	Skilled Trades & Secretarial
			-2.	Sales
			-3.	Personnel Supervision
			-4.	Production Supervision
			-5.	Technical Supervision
			-6.	Professional
			-7.	Top Management
39	Q-T-II Ques. 16	Religion (Observance)	-1.	No religion
			-2.	Seldom
			-3.	Sometimes
			-4.	Usually
			-5.	Almost always
40	Q-T-II Ques. 17	Change (Health)	-1.	Probably not
			-2.	No
			-3.	Maybe
			-4.	Yes
41	Q-T-II Ques. 18	Change (Child rearing)	-1.	Strongly disagree
			-2.	Slightly disagree
			-3.	Slightly agree
			-4.	Strongly agree

Card/Col.	Question	Item Detail	Code	
42	Q-T-II Ques. 19	Change (birth control)	-1. -2. -3. -4.	Always right Probably O.K. Usually wrong Always wrong
43	Q-T-II Ques. 20	Change (Automation)	-1. -2. -3. -4.	Disagree strongly Slightly disagree Agree Strongly Agree slightly
44	Q-T-II Ques. 21	Change (Pol. Leaders)	-1. -2. -3. -4.	Strongly disagree Slightly disagree Slightly disagree Strongly agree
45	Q-T-I Ques. 22	Aid-education (Local)	-1. -2. -3. -4.	Strongly disagree Slightly disagree Slightly agree Strongly agree
46	Q-T-II Ques. 23	Aid-education (Federal)	-1. -2. -3. -4.	Same
47	Q-T-I Ques. 24	Education (Planning)	-1. -2. -3. -4. -5. -6.	Parents Local Government National Government 1 & 2 1 & 3 2 & 3
48	Q-T-II Ques. 25	Change (Self)	-1. -2. -3. -4.	Very difficult Slightly difficult Somewhat easy Very easy
49	Q-T-II Ques. 26	Change (Role adherence)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly
50	Q-T-II Ques. 27	Job (Routine)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly
51	Q-T-II Ques. 28	Future Orient. (Planning)	-1. -2. -3. -4.	Agree strongly Agree slightly Disagree slightly Disagree strongly

Card/Col.	Question	Item Detail	Code	
52	Q-T-II Ques. 29	Happiness (Requistes for)	-1. -2. -3. -4. -5. -6. -7. -8. -9.	Nothing More money More friends Better Job Good Health Other 3,4,5 2,4,5 5,6
53	Q-T-II Ques. 30	Happiness (Possibilities future)	-1. -2. -3. -4. -5. -6. -7. -8. -9.	Nothing More money More friends Better Job Good Health Other 3,4,5 2,4,5 Golden Rule-Education
54	Q-T-II Ques. 31-A	Elem Schools	-1. -2. -3. -4.	Poor Fair Good Excellent
55	Q-T-II Ques. 31-B	Sec. Schools	-1. thru -4.	Same
56	Q-T-II Ques. 31-C	Universities	-1. thru -4.	Same
57	Q-T-II Ques. 31-D	Businessmen	-1. thru -4.	Same
58	Q-T-II Ques. 31-E	Labor	-1. thru -4.	Same
59	Q-T-II Ques. 31-F	Local govern- ment	-1. thru -4.	Same
60	Q-T-II Ques. 31-G	National Government	-1. thru -4.	Same
61	Q-T-II Ques. 31-H	Health Services	-1. thru -4.	Same
62	Q-T-II Ques. 31-I	Churches	-1. thru -4.	Same

MANAGER CODE BOOK

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STUDENT, TEACHER, AND MANAGEMENT EVALUATIONS OF THE BENTON
HARBOR/ST. JOSEPH INDUSTRIAL MANAGEMENT TRAINING PROGRAM

MANAGEMENT FORM

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code 0 or 00 will always mean Not Applicable or Nothing, except as
noted.

2. Code ± for a one column no response, or -9 for a two column no
response, or -99 for a three column no response will mean there
was No Information or Respondent did not answer.

3. In each case in the following pages the column to the left contains
the column number of the IBM card; the second column contains the
question number from the questionnaire; the third column (item
detail) contains the code within each column of the IBM card with an
explanation of the code.

4. Coder instructions always follow a line across the page and are
clearly indicated.

5. In some cases when codes are equal to others already used, they are
not repeated each time, but reference is made to a previous code
or the immediately previous code with "same."

6. Under Code, the first number is the questionnaire question alter-
native and the second number is the actual code which is entered
on the data sheets (i.e., 1-4; one (1) is the questionnaire ques-
tion alternative and 4 is the code).

Card/Col.	Ques.	Item Detail	Code	
1	Face Sheet and Q-1 Ques. 1	Group	-1. Management -2. Student -3. Teacher	
2,3	Face Sheet	Company/School Affiliation	-0. Names of Companies ' Alph. + -99. Schools, etc. (See 5-1-1)	
4,5	Q-M-2-II Ques. 5	Type of Company	-01. List in order from -22. Q-M-2, Ques. 5 (See 5-1-2)	
6,7	Face Sheet	Occupation (Specific)	-01. Devise Specific ' Occupation Code -99. after receipt of data	
8	Face Sheet	Sex	-1. Male -2. Female	
9, 10	Postmark	Date[1] returned by week of receipt	-01. 4-1[2] April 1st week -02. 4-2 April 2nd week -03. 4-3 April 3rd week -04. 4-4 April 4th week -05. 5-1 May 1st week -06. 5-2 May 2nd week -07. 5-3 May 3rd week -08. 5-4 May 4th week -09. 6-1 June 1st week -10. 6-2 June 2nd week -11. 6-3 June 3rd week -12. 6-4 June 4th week	
11	None	Deck No.	-1. Deck 1 (Management)	
12	None	Card No.	-1. Card 1	

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[1] The first Monday of each month is to be used as "starting" the month. Date received prior to a first Monday goes into the previous month.

[2] First digit indicates month, second digit indicates week of month.

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Card/Col.	Ques	Item Detail	Code	
13-16	None	Respondent No.	-0001	Number respondents consecutively by
			-9999	groups as received

MANAGEMENT FORM PART 1

Card/Col.	Ques	Item Detail	Code	
17	Q-M-1 Question 1	Experience with IMTP	-1.	No experience
			-2.	Taken courses
			-3.	Taught courses
			-4.	Administrative Board
			-5.	Financed
			-6.	2, 3, 4, 5
			-7.	2, 4, 3, 5
			-8.	2, 3
18	Q-M-1 Question 2	Courses taken (Company evaluation)	-1.	Not helpful
			-2.	Somewhat helpful
			-3.	Very helpful
19	Q-M-1 Question 3	Student expenses (past payment) policy	-1.	None
			-2.	Less than 50%
			-3.	50% or more
			-4.	All
20	Q-M-I Question 4	Student tuition (Payment policy) Agreement)	-1.	All by student
			-2.	50% by student
			-3.	50% by company
			-4.	All by company
21	Q-M-1 Question 5	Classroom facilities	-1.	Satisfactory as is
			-2.	Central facility
			-3.	Industrial use
			-4.	Other
			-5.	1 and 3
22	Q-M-1 Question 6	Class Time	-1.	Too late
			-2.	Time o.k.
			-3.	Wrong day
			-4.	Day o.k.
			-5.	Time o.k. - day o.k.
23	Q-M-1 Question 7	Night Shift	-1.	Undefined
			-2.	Suggested by management
24.	Q-M-1 Questions 8	Courses (Reason taken) (via company)	-3.	Felt helpful to job
			-4.	Felt helpful for advancement
			-5.	2, 3, 4
			-6.	3 & 4

Card/Col.	Ques.	Item Detail	Code
25,26	Q-M-1 Question 9	Courses (Specific needs) (via company)	-01. Devise -02. Code system -03. On receipt of data
27	Q-M-1 Question 10	Administration of IMTP	-1. As is -2. By industrial group -3. By Lake Michigan College -4. No opinion -5. Other
28-33	Q-M-1 Question 11	Courses-types	1 or 2 Pre-Supervision 1 or 2 Supervision 1 or 2 Middle Management 1 or 2 Top Management 1 or 2 Technicians 1 or 2 Engineering
34	Q-M-1 Question 12	Courses (Admittance to)	-1. Company sponsored -2. Company-anyone -3. Public-at-large -4. 2, 3
35	Q-M-1 Question 13	College credit	-1. No credit -2. College credit -3. Degree -4. No opinion -5. Credit optional -6. 1,5 -7. 1 & 2 -8. -9.

MANAGEMENT FORM PART II

Card/Col.	Ques.	Item Detail	Code
36-39	Q-M-II Question 1	Employees (number)	-0001. Record actual to number from -9999. data
40-42	Q-M-II Question 2	Current Vacancies	-001. Record actual to number from -999. data

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*4-A-1 INSTRUCTIONS TO CODER

   The question grid for Q-M-II #4 is coded as follows: The columns are numbered across from 1 to 6 and the rows are lettered down from A to E. Thus B-3 would designate the estimate for 7/1/60 for skilled technicians (i.e. 2nd row down, 3rd column across).

Card/Col.	Ques.	Item Detail	Code	
43-50	Q-M-II Question 3	Degrees	00-99% 00-99 00-99 00-99	Assoc. of Arts Bachelors Masters Doctoral
51-53	Q-M-II Question 4-A-1	Employment Projection (current)	-001. to -999.	Management
54-56	Q-M-II Question 4-A-2	"	-001. to -999.	Professor &/or Engr.
57-59	Q-M-II Question 4-A-3	"	-001. to -999.	Skilled Technicians
60-62	Q-M-II Question 4-A-4	Employment projection (current)	-001. to -999.	Skill trades
63-66	Q-M-II Question 4-A-5	"	-0000. to -9999.	Unskilled
67-70	Q-M-II Question 4-A-6	"	-0001. to -9999.	Total Current

Card/Col.	Ques.	Item Detail	Code	
1st 10 Col's SAME as Card 1				
11	None	Deck No.	-1	Deck 1 (Management)
12	None	Card No.	-2	Card 2
13-16	None	Respondent number	-001. to -9999.	Number of respondents consecutively by groups as received.
17-19	Q-M-II Question 4-B-1	Estimate as of 7/1/60	-001. to -999.	Management
20-22	Q-M-II Question 4-B-2	"	-001. to -999.	Professor and Engrs.
23-25	Q-M-II Question 4-B-3	"	-001. to -999.	Skilled Technicians
26-28	Q-M-II Question 4-B-4	"	-001. to -999.	Skilled trades
29-32	Q-M-II Question 4-B-5	"	-0001. to -9999.	Unskilled
33-36	Q-M-II Question 4-B-6	"	-0001. to -9999.	Total estimate as of 7/1/60
37-39	Q-M-II Question 4-C-1	Employment projection (Estimate as of 7/1/65)	-001. to -999.	Management
40-42	Q-M-II Question 4-C-2	"	-001. to -999.	Prof. and Engrs.
43-45	Q-M-II Question 4-C-3	Employment projection (Estimate as of 7/1/65)	-001. to -999.	Skilled Technicians

Card/Col.	Ques.	Item Detail	Code	
46-48	Q-M-II Question 4-C-4	Employment projection (Estimate as of 7/1/65)	-001. to -999.	Skilled Trades
49-52	Q-M-II Question 4-C-5	"	-0001. to -9999.	Unskilled
53-56	Q-M-II Question 4-C-6	"	-0001. to -9999.	Total estimate as of 7/1/65
57-59	Q-M-II Question 4-D-1	Employment projection (Estimate as of 7/1/70)	-001. to -999.	Management
60-62	Q-M-II Question 4-D-2	"	-001. to -999.	Prof. and Engrs.
63-65	Q-M-II Question 4-D-3	"	-001. to -999.	Skilled Technicians
66-68	Q-M-II Question 4-D-4	"	-001. to -999.	Skilled Trades
69-72	Q-M-II Question 4-D-5	Employment projection (Estimate as of 7/1/70)	-0001. to -9999.	Unskilled
73-76	Q-M-II Question 4-D-6	"	-0001. to -9999.	Total Estimate as of 7/1/70

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's **SAME** as Card 1

11	None	Deck No.	-1	Deck 1 (Management)
12	None	Card No.	-2	Card 3
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received.
17-19	Q-M-II Question 4-E-1	Employment projection (Estimate as of 7/1/75)	-01. to -02.	Management
20-22	Q-M-II Question 4-E-2	"	-001. to -999.	Prof. and Engrs.
23-25	Q-M-II Question 4-E-3	"	-001. to -999.	Skilled Technicians
26-28	Q-M-II Question 4-E-4	Employment projection (Estimate as of 7/1/75)	-001. to -999.	Skilled Trades
29-32	Q-M-II Question 4-E-5	"	-001. to -999.	Unskilled
33-36	Q-M-II Question 4-E-6	"	-0001. to -9999.	Total estimate as of 7/1/75)
37-39	Q-M-II Question 6-A	Projected Employment (Mgt. & Prof. personnel)	-001. to -999.	Immediately
40-42	Q-M-II Question 6-B	"	-001. to -999.	Next 5 years
43-45	Q-M-II Question 6-C	"	-001. to -999.	Next 10 years

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Card/Col.	Ques.	Item Detail	Code	
46	Q-M-II Question 7-A	Have Mgt. Training Department	-1. -2.	No Yes
47,48	Q-M-II Question 7-B	How many employees in department	-00. to -99.	Number of Mgt. Training Department Employees
49	Q-M-II Question 8	Company Training[1] Program since 1960	-1. -2.	None Yes
50	Q-M-II Question 9	Planned change in training program	-1 -2. -3 to -9	None Yes Undecided is in
51, 52	Q-M-II Question 10-A-1	Training Program by other since 1960 (Course name)	-00 01 thru -99	None Devise after data is in
53	Q-M-II Question 10-A-2	Name of Training Institute	-1. -2. -3.	Mich. State Univ. U. of Mich. Lake Mich. College
54,55	Q-M-II Question 10-A-3	Number of students per course	-01. thru -09.	Devise after data is in
56	Q-M-II Question 10-A-4	Course location	-1. -2.	in plant at school
57	Q-M-II Question 10-A-5	Course fee	-1. thru -9.	Devise after data is in
58	Q-M-II Question 10-A-6	Projected Course Sponsorship	-1. thru -9.	Devise after data is in
59-80	Q-M-II			

INSTRUCTIONS TO CODER

[1] After all management forms are scored decide whether question 8 needs to be coded and recorded for computer processing. If so, IBM card location must be assigned

Card/Col.	Ques.	Item Detail	Code	
1st 10 Col's SAME as Card 1				
11	None	Deck No		Deck 1 (Management)
12	None	Card No		Card 4
13-16	None	Respondent No	-0001 to -9999	Number respondents consecutively by group as received
17-20	Q-M-II Question 11-A	Management Courses needed by sponsor- ship (high school)	-0001. thru -9999.	Devise after data is in
21-24	Q-M-II Question 11-B	Adult School	-0001. thru -9999.	Devise after data is in
25-28	Q-M-II Question 11-C	Junior College	-0001. thru -9999.	Devise after data is in
29-32	Q-M-II Question 11-D	College or University	-0001. thru -9999.	Devise after data is in
33-36	Q-M-II Question 11-E	College or Univ. Extension	-0001. thru -9999.	Devise after data is in
37	Q-M-II Question 12[1]-A-1	Competencies by Management Class Divisions (Equip.)	-1. -2. -3. -4. -5.	None Little Some Great Thorough
38	12-A-2	Production	-1. thru -5.	Same as above
39	12-A-3	Materials	-1. thru -5.	Same as above
40	12-A-4	Machine and Tools	-1. thru -5.	Same as above

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[1]INSTRUCTIONS TO CODER

Question 12 is coded as follows: The rows are lettered down from A thru I and the Columns are numbered across from 1 thru 11. Thus B-3 refers to the education of Office Superiors/working with materials.

Card/Col.	Ques.	Item Detail	Code	
41	12-A-5	Drawings and Reports	-1. -2. -3. -4. -5.	None Little Some Great Thorough
42	12-A-6	Other Personnel	-1. thru -5.	Same as above
43	12-A-7	Mathematics	-1. thru -5.	Same as above
44	12-A-8	Science and Technical	-1. thru -5.	Same as above
45	12-A-9	Communications	-1. thru -5.	Same as above
46	12-A-10	Management & Human Relations	-1. thru -5.	Same as above
47	12-A-11	Accounting & General Business	-1. thru -5.	Same as above
48	12-B-1	Equipment	-1. thru -5.	Same as above
49	12-B-2	Production	-1. thru -5.	Same as above
50	12-B-3	Materials	-1. thru -5.	Same as above
51	12-B-4	Machine & Tools	-1. thru -5.	Same as above
52	12-B-5	Drawing & Reports	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
53	12-B-6	Other Personnel	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
54	12-B-7	Mathematics	-1. thru -5.	Same as above
55	12-B-8	Science and Technical	-1. thru -5.	Same as above
56	12-B-9	Communications	-1. thru -5.	Same as above
57	12-B-10	Management & Human Relations	-1. thru -5.	Same as above
58	12-B-11	Accounting & General Business	-1. thru -5.	Same as above
59	12-C-1	Equipment	-1. thru -5.	Same as above
60	12-C-2	Production	-1. thru -5.	Same as above
61	12-C-3	Materials	-1. thru -5.	Same as above
62	12-C-4	Machine & Tools	-1. thru -5.	Same as above
63	12-C-5	Drawings & Reports	-1. thru -5.	Same as above
64	12-C-6	Other Personnel	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
65	12-C-7	Mathematics	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
66	12-C-8	Science and Technical	-1. thru -5.	Same as above
67	12-C-9	Communications	-1. thru -5.	Same as above
68	12-C-10	Management & Human Relations	-1. thru -5.	Same as above
69	12-C-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's SAME as Card 1

Card/Col.	Ques.	Item Detail	Code	
11	None	Deck No.	Deck 1	(Management)
12	None	Card no.	Card 5	
13-16	None	Respondent No.	-0001. to -9999.	Number respondents consecutively by group as received
17	Q-M-II Question 12-D-1	Competencies by Management Class Division (Equip.)	-1. -2. -3. -4. -5.	None Little Some Great Thorough
18	12-D-2	Production	-1. thru -5.	Same as above
19	12-D-3	Materials	-1. thru -5.	Same as above
20	12-D-4	Machine & Tools	-1. thru -5.	Same as above
21	12-D-5	Drawings & Reports	-1. thru -5.	Same as above
22	12-D-6	Other Personnel	-1. thru -5.	Same as above
23	12-D-7	Mathematics	-1. thru -5.	Same as above
24	12-D-8	Science and Technical	-1. thru -5.	Same as above
25	12-D-9	Communications	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
26	12-D-10	Management & Human Relations	-1. -2. -3. -4. -5.	None Little Some Great Thorough
27	12-D-11	Accounting & General Business	-1. thru -5.	Same as above
28	12-E-1	Equipment	-1. thru -5.	Same as above
29	12-E-2	Production	-1. thru -5.	Same as above
30	12-E-3	Materials	-1. thru -5.	Same as above
31	12-E-4	Machine & Tools	-1. thru -5.	Same as above
32	12-E-5	Drawings & Reports	-1. thru -5.	Same as above
33	12-E-6	Other Personnel	-1. thru -5.	Same as above
34	12-E-7	Mathematics	-1. thru -5.	Same as above
35	12-E-8	Science and Technical	-1. thru -5.	Same as above
36	12-E-9	Communications	-1. thru -5.	Same as above
37	12-E-10	Management & Human Relations	-1. thru -5.	Same as above
38	12-E-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
39	12-F-1	Equipment	-1.	None ·
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
40	12-F-2	Production	-1. thru -5.	Same as above
41	12-F-3	Materials	-1. thru -5.	Same as above
42	12-F-4	Machine & Tools	-1. thru -5.	Same as above
43	12-F-5	Drawings & Reports	-1. thru -5.	Same as above
44	12-F-6	Other Personnel	-1. thru -5.	Same as above
45	12-F-7	Mathematics	-1. thru -5.	Same as above
46	12-F-8	Science & Technical	-1. thru -5.	Same as above
47	12-F-9	Communications	-1. thru -5.	Same as above
48	12-F-10	Management & Human Relations	-1. thru -5.	Same as above
49	12-F-11	Accounting & General Business	-1. thru -5.	Same as above
50	12-G-1	Equipment	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
51	12-G-2	Production	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
52	12-G-3	Materials	-1. thru -5.	Same as above
53	12-G-4	Machine & Tools	-1. thru -5.	Same as above
54	12-G-5	Drawings and Reports	-1. thru -5.	Same as above
55	12-G-6	Other Personnel	-1. thru -5.	Same as above
56	12-G-7	Mathematics	-1. thru -5.	Same as above
57	12-G-8	Science and Technical	-1. thru -5.	Same as above
58	12-G-9	Communications	-1. thru -5.	Same as above
59	12-G-10	Management & Human Relations	-1. thru -5.	Same as above
60	12-G-11	Accounting & General Business	-1. thru -5.	Same as above
61	12-H-1	Equipment	-1. thru -5.	Same as above
62	12-H-2	Production	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
63	12-H-3	Materials	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
64	12-H-4	Machine & Tools	-1. thru -5.	Same as above
65	12-H-5	Drawings and Reports	-1. thru -5.	Same as above
66	12-H-6	Other Personnel	-1. thru -5.	Same as above
67	12-H-7	Mathematics	-1. thru -5.	Same as above
68	12-H-8	Science and Technical	-1. thru -5.	Same as above
69	12-H-9	Communications	-1. thru -5.	Same as above
70	12-H-10	Management & Human Relations	-1. thru -5.	Same as above
71	12-H-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's SAME as Card 1

Card/Col.	Ques.	Item Detail	Code	
11	none	Deck No.	-1	Deck 1 (Management)
12	none	Card No.	-5	Card 6
13-16	none	Respondent No.	-0001 to -9999	Number respondents consecutively by group as received
17	Q-M-II Question 12-I-1	Competencies by Management Class Divisions (Equip.)	-1. -2. -3. -4. -5.	None Little Some Great Thorough
18	12-I-2	Production	-1. thru -5.	Same as above
19	12-I-3	Materials	-1. thru -5.	Same as above
20	12-I-4	Machine & Tools	-1. thru -5.	Same as above
21	12-I-5	Drawings & Reports	-1. thru -5.	Same as above
22	12-I-6	Other Personnel	-1. thru -5.	Same as above
23	12-I-7	Mathematics	-1. thru -5.	Same as above
24	12-I-8	Science & Technical	-1. thru -5.	Same as above
25	12-I-9	Communications	-1. thru -5.	Same as above
26	12-I-10	Management & Human Relations	-1. thru -5.	Same as above
27	12-I-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
28	Q-M-II Question 13-A-1	Competencies by Management Class Divisions (Equip.)	-1. -2. -3. -4. -5.	None Little Some Great Thorough
29	13-A-2	Production	-1. thru -5.	Same as above
30	13-A-3	Materials	-1. thru -5.	Same as above
31	13-A-4	Machine & Tools	-1. thru -5.	Same as above
32	13-A-5	Drawings & Reports	-1. thru -5.	Same as above
33	13-A-6	Other Personnel	-1. thru -5.	Same as above
34	13-A-7	Mathematics	-1. thru -5.	Same as above
35	13-A-8	Science & Technical	-1. thru -5.	Same as above
36	13-A-9	Communications	-1. thru -5.	Same as above
37	13-A-10	Management & Human Relations	-1. thru -5.	Same as above
38	13-A-11	Accounting & General Business	-1. thru -5.	Same as above
39	13-B-1	Equipment	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code
40	13-B-2	Production	-1. None -2. Little -3. Some -4. Great -5. Thorough
41	13-B-3	Materials	-1. thru Same as above -5.
42	13-B-4	Machine & Tools	-1. thru Same as above -5.
43	13-B-5	Drawings & Reports	-1. thru Same as above -5.
44	13-B-6	Other Personnel	-1. thru Same as above -5.
45	13-B-7	Mathematics	-1. thru Same as above -5.
46	13-B-8	Science & Technical	-1. thru Same as above -5.
47	13-B-9	Communications	-1. thru Same as above -5.
48	13-B-10	Management & Human Relations	-1. thru Same as above -5.
49	13-B-11	Accounting & General Business	-1. thru Same as above -5.
50	13-C-1	Equipment	-1. thru Same as above -5.
51	13-C-2	Production	-1. thru Same as above -5.
52	13-C-3	Materials	-1. thru Same as above -5.

Card/Col.	Ques.	Item Detail	Code	
53	13-C-4	Machine & Tools	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
54	13-C-5	Drawings & Reports	-1. thru -5.	Same as above
55	13-C-6	Other Personnel	-1. thru -5.	Same as above
56	13-C-7	Mathematics	-1. thru -5.	Same as above
57	13-C-8	Science & Technical	-1. thru -5.	Same as above
58	13-C-9	Communications	-1. thru -5.	Same as above
59	13-C-10	Management & Human Relations	-1. thru -5.	Same as above
60	13-C-11	Accounting & General Business	-1. thru -5.	Same as above
61	13-D-1	Equipment	-1. thru -5.	Same as above
62	13-D-2	Production	-1. thru -5.	Same as above
63	13-D-3	Materials	-1. thru -5.	Same as above
64	13-D-4	Machine & Tools	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
65	13-D-5	Drawings & Reports	-1. -2. -3. -4. -5.	None Little Some Great Thorough
66	13-D-6	Other Personnel	-1. thru -5.	Same as above
67	13-D-7	Mathematics	-1. thru -5.	Same as above
68	13-D-8	Science & Technical	-1. thru -5.	Same as above
69	13-D-9	Communications	-1. thru -5.	Same as above
70	13-D-10	Management & Human Relations	-1. thru -5.	Same as above
71	13-D-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	

1st 10 Col's <u>SAME</u> as Card 1

Card/Col.	Ques.	Item Detail	Code	
11	None	Deck No.	-1.	Deck 1 (Management)
12	None	Card No.	-6.	Card 7
13-16	None	Respondent No.	-0001 to -9999	Number respondents consecutively by groups as received
17	Q-M-II Question 13-E-1	Competencies by Management Class Divisions (Equip.)	-1. -2. -3. -4. -5.	None Little Some Great Thorough
18	13-E-2	Production	-1. thru -5.	Same as above
19	13-E-3	Materials	-1. thru -5.	Same as above
20	13-E-4	Machine & Tools	-1. thru -5.	Same as above
21	13-E-5	Drawings & Reports	-1. thru -5.	Same as above
22	13-E-6	Other Personnel	-1. thru -5.	Same as above
23	13-E-7	Mathematics	-1. thru -5.	Same as above
24	13-E-8	Science & Technical	-1. thru -5.	Same as above
25	13-E-9	Communications	-1. thru -5.	Same as above
26	13-E-10	Management & Human Relations	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	

<u>Card/Col.</u>	<u>Ques.</u>	<u>Item Detail</u>	<u>Code</u>	
27	13-E-11	Accounting & General Business	-1. -2. -3. -4. -5.	None Little Some Great Thorough
28	13-F-1	Equipment	-1. thru -5.	Same as above
29	13-F-2	Production	-1. thru -5.	Same as above
30	13-F-3	Materials	-1. thru -5.	Same as above
31	13-F-4	Machine & Tools	-1. thru -5.	Same as above
32	13-F-5	Drawings & Reports	-1. thru -5.	Same as above
33	13-F-6	Other Personnel	-1. thru -5.	Same as above
34	13-F-7	Mathematics	-1. thru -5.	Same as above
35	13-F-8	Science & Technical	-1. thru -5.	Same as above
36	13-F-9	Communications	-1. thru -5.	Same as above
37	13-F-10	Management & Human Relations	-1. thru -5.	Same as above
38	13-F-11	Accounting & General Business	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
39	13-G-1	Equipment	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
40	13-G-2	Production	-1. thru -5.	Same as above
41	13-G-3	Materials	-1. thru -5.	Same as above
42	13-G-4	Machine & Tools	-1. thru -5.	Same as above
43	13-G-5	Drawings & Reports	-1. thru -5.	Same as above
44	13-G-6	Other Personnel	-1. thru -5.	Same as above
45	13-G-7	Mathematics	-1. thru -5.	Same as above
46	13-G-8	Science & Technical	-1. thru -5.	Same as above
47	13-G-9	Communications	-1. thru -5.	Same as above
48	13-G-10	Management & Human Relations	-1. thru -5.	Same as above
49	13-G-11	Accounting & General Business	-1. thru -5.	Same as above
50	13-H-1	Equipment	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
51	13-H-2	Production	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
52	13-H-3	Materials	-1. thru -5.	Same as above
53	13-H-4	Machine & Tools	-1. thru -5.	Same as above
54	13-H-5	Drawings & Reports	-1. thru -5.	Same as above
55	13-H-6	Other Personnel	-1. thru -5.	Same as above
56	13-H-7	Mathematics	-1. thru -5.	Same as above
57	13-H-8	Science & Technical	-1. thru -5.	Same as above
58	13-H-9	Communications	-1. thru -5.	Same as above
59	13-H-10	Management & Human Relations	-1. thru -5.	Same as above
60	13-H-11	Accounting & General Business	-1. thru -5.	Same as above
61	13-I-1	Equipment	-1. thru -5.	Same as above
62	13-I-2	Production	-1. thru -5.	Same as above

Card/Col.	Ques.	Item Detail	Code	
63	13-I-3	Materials	-1.	None
			-2.	Little
			-3.	Some
			-4.	Great
			-5.	Thorough
64	13-I-4	Machine & Tools	-1. thru -5.	Same as above
65	13-I-5	Drawings & Reports	-1. thru -5.	Same as above
66	13-I-6	Other Personnel	-1. thru -5.	Same as above
67	13-I-7	Mathematics	-1. thru -5.	Same as above
68	13-I-8	Science & Technical	-1. thru -5.	Same as above
69	13-I-9	Communications	-1. thru -5.	Same as above
70	13-I-10	Management & Human Relations	-1. thru -5.	Same as above
71	13-I-11	Accounting & General Business	-1. thru -5.	Same as above

APPENDIX G

STATISTICAL DATA--TABLES G.1 TO G.42

TABLE G.1.-- Student and teacher evaluations of courses in IMTP.

Item Detail	Group	Question No.	Subject Matter			Teacher Effect			Benefit of Courses		
			Poor	Moderate	Well Developed	Poor	Average	Good	Not Helpful	Somewhat Help.	Very Helpful
					Per Cent						
Overall Course	S	2	6	33	61	5	36	59	4	52	44
Evaluation	T	2	0	28	72	2	44	54	0	37	63

TABLE G.2.--Comparative results (N's and percentages) of student, company, and teacher replies to selected items.

Item Detail	Group	Question No.	Yes		No	
			N	%	N	%
Night Shift Classes	S	10	225	68.18	31	9.39
	M	7	9	45.00	5	25.00
	T	9	19	65.52	9	31.03

Item Detail	Group	Question No.	Not		Somewhat		Very Helpful	
			N	%	N	%	N	%
Course Benefit (Overall)	S	3	5	1.52	185	65.05	99	30.00
	M	2	--	---	8	40.00	11	55.00
	T	3	--	---	18	62.07	11	37.93

Item Detail	Group	Question No.	None		Less than 50%		50% Plus		All	
			N	%	N	%	N	%	N	%
Tuition Fees (% paid by company)	S	6	6	1.82	6	1.82	70	21.21	211	63.94
	M	3	--	---	--	---	6	30.00	13	65.00
	T	5	--	---	--	---	13	44.83	13	44.83
Tuition Fees (% student should pay)	S	7	7	2.12	24	7.27	79	23.94	176	53.33
	M	6	--	---	1	5.00	8	40.00	9	45.00
	T	6	--	---	2	6.90	12	41.38	15	51.72

Item Detail	Group	Question No.	Satisfactory		Central		Industry		Other	
Classroom Facility	S	8	155	46.97	52	15.76	78	23.64	4	1.21
	M	5	13	65.00	3	15.00	2	10.00	--	---
	T	7	13	44.83	8	27.59	3	20.69	2	6.90

Item Detail	Group	Question No.	Too late		Time O.K.		Wrong Day		Day O.K.		Time & Day O.K.	
Class (time of day)	S	9	19	5.76	116	35.15	7	2.12	25	7.58	123	37.27
	M	6	--	---	7	35.00	1	5.00	11	55.00	--	---
	T	8	--	---	13	44.83	--	---	2	6.90	14	48.28

[1] See questionnaires (Appendix A) for full meaning of question.

[2] S = student; M = management; T = teacher.

TABLE G.2.--(continued).

Item Detail	Group	Question No	Item Categories											
			No reason		Suggested		Helpful-job		Help - adv.		Helpful(J&A)		Sugg.&help	
			N	%	N	%	N	%	N	%	N	%	N	%
Reason took course	S	11	3	.91	24	7.27	138	41.82	58	17.58	51	15.45	17	5.15
	M	8	--	---	1	5.00	12	60.00	2	10.00	1	5.00	2	10.00

Item Detail	Group	Question No	As is		Industry		College		No opinion		Other	
			N	%	N	%	N	%	N	%	N	%
Administration of IMTP	S	13	246	74.55	15	4.55	13	3.94	40	12.12	2	.61
	M	12	19	95.00	--	---	--	---	--	---	--	---
	T	10	24	82.76	2	6.90	1	3.45	--	---	--	---

Item Detail	Group	Question No	Pre-sup.		Supervisory		Middle Management		Top Management		Technicians		Engineering		1,2,5		1,2,3,5,6		All	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Type Training Needed	S	14	36	10.91	38	11.52	68	20.61	7	2.12	26	7.88	11	3.33	20	6.06	55	16.67	47	14.24
	T	13	14	48.28	2	6.90	3	10.34	--	---	7	27.14	2	6.90	--	---	--	---	--	---

Item Detail	Group	Question No	Sponsored		Company		Public		1 & 2		2 & 3		1,2,3	
			N	%	N	%	N	%	N	%	N	%	N	%
Admission to IMTP Courses	S	15	71	21.52	120	36.36	102	30.91	5	1.52	16	4.85	--	---
	M	12	6	30.00	4	20.00	7	35.00	2	10.00	--	---	--	---
	T	14	10	34.48	4	13.79	8	27.59	1	3.45	4	13.79	1	3.45

Item Detail	Group	Question No	None		Yes		Degree		No opinion		Optional		Other	
			N	%	N	%	N	%	N	%	N	%	N	%
College Credit	S	16	135	40.91	36	10.91	38	11.52	9	2.73	96	29.09	1	0.30
	M	13	8	40.00	2	10.00	1	5.00	--	---	5	25.00	2	10.00
	T	15	14	48.28	2	6.90	3	10.34	--	---	7	27.14	2	6.90

[1]See questionnaires (Appendix A) for full meaning of question.

[2]S = student; M = management; T = teacher.

TABLE G.3.--Results (N's and percentages) of teacher responses to selected items.

Item[1] Detail	Question No.	Item Alternatives					
		Inadequate		Fair		Good	
		N	%	N	%	N	%
Course Content	4	1	3.45	14	48.14	12	41.38
Reason - teach		No reason		Pressure		Enjoy		Salary	
	10	1	3.45	4	13.79	22	75.86	--	---

TABLE G.4.--Results (N's and percentages) of management responses to type of training needed by companies.

Type (Question 11)	Needed			
	No		Yes	
	N	%	N	%
Pre-supervisory	11	55.00	8	40.00
Foreman & Super.	2	10.00	17	85.00
Middle Management	3	15.00	16	80.00
Top Management	12	60.00	7	35.00
Technicians	9	45.00	10	50.00
Engineering	11	55.00	8	40.00

[1]See questionnaires (Appendix A) for full meaning of question.

TABLE G.5.--Results (N's and percentages) of student
responses to selected items.

Item Detail[1]	Question No.	Item Alternatives					
		Inadequate		Fair		Good	
		N	%	N	%	N	%
Course Content	4	9	2.73	150	45.45	131	39.70

Item Detail[1]	Question No.	Very poor		Poor		Good		Very Good	
		N	%	N	%	N	%	N	%
Teacher Effectiveness	5	3	.91	17	5.15	201	60.91	70	21.21

[1]See questionnaires (Appendix A) for full meaning
of question.

TABLE G.6.--Results (N's and percentages) of student and teacher responses to selected items of the general questionnaire.

Item Detail[1]	Group[2]	Question No.	Item Alternatives							
			Country		Country Town		City		Suburb	
			N	%	N	%	N	%	N	%
Where reared	S	1	107	32.42	67	20.30	123	37.27	33	10.00
	T	1	6	20.69	6	20.69	13	44.83	2	6.90
Recent residence	S	2	58	17.58	50	15.15	108	32.73	114	34.55
	T	2	3	10.34	2	6.90	15	51.72	7	24.14

Item Detail	Group	Question No.	Divorced		Separated		Widowed		Single		Married	
Marital status	S	4	16	1.82	1	.30	--	---	14	4.24	309	93.64
	T	4	1	3.45	--	---	--	---	--	---	26	89.66

Item Detail	Group	Question No.	Protestant		Catholic		Jewish	
Religious affiliation	S	8	255	77.27	62	18.79	--	---
	T	8	22	75.86	5	17.24	--	---

Item Detail	Group	Question No.	None		Not very		Fairly		Very	
Religion - importance	S	9	6	1.82	65	19.70	161	48.79	96	29.09
	T	9	--	---	4	13.79	16	55.17	7	24.14

Item Detail	Group	Question No.	None		Seldom		Sometimes		Usually		Always	
			N	%	N	%	N	%	N	%	N	%
Religion - adherence	S	16	8	2.42	16	4.85	46	13.94	142	43.03	113	34.24
	T	16	--	---	3	10.34	4	13.79	13	44.83	8	27.59

Item Detail	Group	Question No.	None		25%		25 - 50%		50 - 75%		Over 75%	
Job personalism	S	10	28	8.48	162	49.09	78	23.64	51	15.45	11	3.33
	T	10	1	3.45	12	41.38	9	31.03	3	10.34	4	13.79

Item Detail	Group	Question No.	Not		Not very		Fairly		Very	
Personalism importance	S	11	61	18.48	134	40.61	91	27.58	42	12.73
	T	11	4	13.79	10	34.48	10	34.48	5	17.24

[1] See questionnaires (Appendix A) for full meaning of question.

[2] S = student; M = management; T = teacher.

TABLE G.6.--Continued.

Item[1] Detail	Group[2]	Ques. No.	Not		No		Maybe		Yes	
			N	%	N	%	N	%	N	%
Health	S	17	17	5.15	17	5.15	71	21.52	221	66.97
	T	17	1	3.45	--	---	4	13.79	23	79.31
Child rearing			Strongly Disagree		Slightly Disagree		Slightly Agree		Strongly Agree	
	S	18	39	11.82	60	18.18	169	51.21	51	15.54
	T	18	2	6.90	6	20.69	17	58.62	3	20.34
Birth Control			Always right		Probably right		Usually wrong		Always wrong	
	S	19	115	34.85	169	51.21	19	5.76	10	3.03
	T	19	10	34.48	16	55.17	1	3.45	--	---
Automation			Strongly disagree		Slightly disagree		Strongly agree		Slightly agree	
	S	20	1	.30	14	4.24	254	76.97	58	17.58
	T	20	--	---	1	3.45	28	96.55	--	---
Political Leaders			Strongly disagree		Slightly disagree		Slightly agree		Strongly agree	
	S	21	89	26.97	61	18.48	90	27.27	87	26.36
	T	21	6	20.69	5	17.24	11	37.93	6	20.69
Educ. Aid Local	S	22	44	13.33	51	15.45	116	35.15	115	34.85
	T	22	1	3.45	1	3.45	7	24.14	20	68.97
Educ. Aid Federal	S	23	130	39.39	73	22.12	78	23.64	45	13.64
	T	23	12	41.38	6	20.69	8	27.59	3	10.34

[1]See questionnaires (Appendix A) for full meaning of question.

[2]S = student; M = management; T = teacher.

TABLE G.6.--Continued.

Item[1] Detail	Group[2]	Question No.	Item Alternatives					
			Parents		Local		National	
			N	%	N	%	N	%
Educational planning	S	24	133	40.30	145	43.94	37	11.21
	T	24	7	24.14	18	62.18	2	6.90

Item Detail	Group	Question No.	Very difficult		Slightly difficult		Somewhat easy		Very easy	
			N	%	N	%	N	%	N	%
Self change	S	25	22	6.67	158	47.88	129	39.09	18	5.45
	T	25	1	3.45	7	24.14	19	65.52	2	6.90

Item Detail	Group	Question No.	Agree strongly		Agree slightly		Disagree slightly		Disagree strongly	
Rule adherence	S	26	17	5.15	64	19.39	169	51.21	79	23.94
	T	26	--	---	5	17.24	15	51.72	9	31.03
Job regularity	S	27	14	4.24	46	13.94	120	36.36	149	45.15
	T	27	--	---	2	6.90	10	34.48	17	58.62
Planning (fatalism)	S	28	6	1.82	20	6.06	65	19.70	238	72.12
	T	28	--	---	--	---	6	20.69	23	79.31

[1]See questionnaires (Appendix A) for full meaning of question.

[2]S = student; M = management; T = teacher.

TABLE G.6.--Continued.

Item Detail[1]	Group[2]	Question No.	Item Alternatives							
			Poor		Fair		Good		Excellent	
			N	%	N	%	N	%	N	%
Elementary schools	S	31A	8	2.42	45	13.64	219	66.36	54	16.36
	T	31A	--	---	5	17.24	20	68.97	4	13.79
Secondary schools	S	31B	12	3.64	62	18.79	208	63.03	42	12.73
	T	31B	--	---	6	20.69	19	65.52	4	13.79
Universities	S	31C	7	2.12	67	20.30	177	53.64	50	15.15
	T	31C	--	---	10	34.48	17	58.62	2	6.90
Businessmen	S	31D	20	6.06	91	27.58	185	56.06	29	8.79
	T	31D	--	---	14	48.28	11	37.93	3	10.34
Labor	S	31E	40	12.12	156	47.27	118	35.76	10	3.03
	T	31E	6	20.69	11	37.93	12	41.38	--	---
Local government	S	31F	21	6.36	154	46.67	142	43.03	7	2.12
	T	31F	1	3.45	15	51.72	11	37.93	1	3.45
National government	S	31G	70	21.21	150	45.45	93	28.18	10	3.03
	T	31G	8	27.59	17	58.62	13	13.79	--	---
Health services	S	31H	14	4.24	75	22.73	165	50.00	65	19.70
	T	31H	--	---	6	20.69	21	72.41	1	3.45
Churches	S	31I	15	4.55	64	19.39	157	47.58	79	23.94
	T	31I	--	---	10	34.48	17	58.62	2	6.90

[1]See questionnaires (Appendix A) for full meaning of question.

[2]S = student; M = management; T = teacher.

Item Detail[1]	Group	No.	Less 8		8 - 12		12 - grad		Technical		Jr.College		2 Yrs.Univ.		3 Yrs.Univ.		Univ.Degree		Adv.Degree	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Education amount	S	12	3	.91	32	9.70	98	29.70	74	22.42	52	15.76	--	---	4	1.21	57	17.27	10	3.03
	T	12	1	3.45	--	---	5	17.24	1	3.45	1	3.45	17	58.62	2	6.90	--	---	--	---

Item Detail[1]	Group	No.	None		1 time		2-3		4-6		7-10		Over 10	
			N	%	N	%	N	%	N	%	N	%	N	%
Residence change frequency	S	13	182	55.15	97	29.39	42	12.73	8	2.42	--	---	1	.30
	T	13	14	48.28	10	34.48	5	17.24	--	---	--	---	--	---
Job change frequency	S	14	218	66.06	62	18.79	34	10.30	11	3.33	5	1.52	--	---
	T	14	20	68.97	6	20.69	3	10.34	--	---	--	---	--	---

Item Detail[1]	Group	No.	Nothing		Money		Friends		Job		Health		Other		3,4,5		2,4,5		Golden Rule Education	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Happiness requisites	S	29	8	2.42	42	12.73	22	6.67	53	16.06	171	51.82	28	8.48	--	---	--	---	--	---
	T	29	1	3.45	--	---	--	---	3	10.34	14	48.28	6	20.69	3	10.34	1	3.45	--	---
Happiness possibilities	S	30	80	24.24	6	1.82	15	4.55	36	10.91	102	30.91	3	.91	12	3.64	69	20.91	3	.91
	T	30	3	10.34	--	---	--	---	9	31.03	10	34.48	--	---	1	3.45	1	3.45	4	13.79

[1] See questionnaires (Appendix A) for full meaning of question.

[2] S = student; M = management; T = teacher.

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TABLE G.7.--First line production supervisors: student
         perception of need by area. Question 17-A.

AREA [1]	N	none		little		some		great		thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	45	2	4.4	--	---	12	26.6	11	24.4	20	44.4
Work/prod.	46	1	2.1	1	2.1	9	19.5	12	26.0	25	54.3
Work/mat'ls.	46	2	4.3	1	2.1	8	17.3	15	32.6	20	43.4
Work/mach's.	45	4	8.8	3	6.6	10	22.2	13	28.8	15	33.3
Work draw.&rep	45	1	2.2	5	11.1	15	33.3	8	17.7	16	35.5
Work/person.	49	2	4.0	2	4.0	6	12.2	12	24.4	27	55.1
Math.	43	7	16.2	5	11.6	18	41.8	11	25.5	2	4.6
Sc. & tech.	41	7	17.0	17	41.4	9	21.9	4	9.7	4	9.7
Comm.	45	4	8.8	6	13.3	7	15.5	10	22.2	18	40.0
Mgt.&hum rel.	44	2	4.5	3	6.8	4	9.0	14	31.8	21	47.7
Acc'tg. & bus.	40	10	25.0	9	22.5	15	37.5	2	5.0	4	10.0
Totals	489	42	8.58	52	10.63	113	23.10	112	22.90	172	35.17

1. For full title of areas see question 17 - Student Form.

TABLE G.8.--First line production supervisors: student
perception of competency by area.   Question 18-A.

AREA [1]	N	poor		fair		average		good		excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	44	1	2.2	3	6.8	15	34.0	21	47.7	4	9.0
Work/prod.	45	--	---	4	8.8	11	24.4	26	57.7	4	8.8
Work/mat'ls.	43	--	---	2	4.6	19	44.1	17	39.5	5	11.6
Work/mach's.	42	2	4.7	5	11.9	12	28.5	18	42.8	5	11.9
Work draw. &rep	41	2	4.8	2	4.8	20	48.7	13	31.7	4	9.7
Work/person.	44	--	---	2	4.5	10	22.7	23	52.2	9	20.4
Math.	40	1	2.5	15	37.5	10	25.0	12	30.0	2	5.0
Sc. & tech.	37	8	21.6	17	45.9	8	21.6	2	5.4	2	5.4
Comm.	40	1	2.5	5	12.5	18	45.0	15	37.5	1	2.5
Mgt. &hum rel.	40	1	2.5	4	10.0	13	32.5	19	47.5	3	7.5
Acc'tg. & bus.	36	8	22.2	16	44.4	8	22.2	4	11.1	--	---
Totals	452	24	5.30	75	16.59	144	31.85	170	37.61	39	8.62

1. For full title of areas see question 18 - Student Form.

TABLE G.9.--First line production supervisors: management perception of need by area. Question 12-A.

AREA[1]	N	Importance to Job									
		none		little		some		great		thoroughly	
	N	N	%	N	%	N	%	N	%	N	%
Work/equip.	16	--	---	5	6.25	--	---	6	37.50	8	50.00
Work/prod.	16	--	---	--	---	--	---	4	25.00	11	68.75
Work/mat'ls.	16	--	---	1	6.25	1	6.25	6	37.50	7	43.75
Work/mach's.	16	--	---	1	6.25	2	12.50	6	37.50	6	37.50
Work draw. &rep	16	---	---	--	---	5	31.25	6	37.50	4	25.00
Work/person.	16	--	---	--	---	--	---	11	68.75	5	31.25
Math.	16	2	12.50	4	25.00	8	50.00	1	6.25	1	6.25
Sc. & tech.	16	1	6.25	5	31.25	9	56.25	--	---	--	---
Comm.	16	--	---	--	---	3	18.75	7	43.75	6	37.50
Mgt. &hum rel.	16	--	---	--	---	2	12.50	8	50.00	6	37.50
Acc'tg. & bus.	16	3	18.75	2	12.50	10	62.50	1	6.25	--	---
Totals	1 76	6	3.40	18	10.22	40	22.72	56	31.81	54	30.68

1. For full title of areas see question 12 - Management Form.

TABLE G.10.--First line production supervisors: management perception of competency by area. Question 13-A.

AREA [1]	N	Present Knowledge									
		Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	17	--	---	1	5.88	4	23.53	5	29.41	5	29.41
Work/prod.	17	--	---	3	17.65	4	23.53	5	29.41	3	17.65
Work/mat'ls.	17	--	---	--	---	7	41.18	6	35.39	2	11.76
Work/mach's.	17	--	---	1	5.88	4	23.53	7	41.18	3	17.65
Work draw. &rep	17	--	---	5	29.41	6	35.29	2	11.76	2	11.76
Work/person.	17	1	5.88	--	---	8	47.06	5	29.41	2	11.76
Math.	17	1	5.88	7	41.18	5	29.41	2	11.76	1	5.88
Sc. & tech.	17	1	5.88	5	29.41	7	41.18	1	5.88	--	---
Comm.	17	1	5.88	6	35.29	4	23.53	5	29.41	--	---
Mgt. &hum rel.	17	2	11.76	3	17.65	7	41.18	3	17.65	1	5.88
Acc'tg. & bus.	17	3	17.65	10	58.82	2	11.76	1	5.88	--	---
Totals	187	9	4.81	41	21.92	58	31.01	42	22.45	19	10.16

1. For full title of areas see question 13 - Management Form.

TABLE G.11.--Office supervisors: student perception of
need by area. Question 17-B.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	17	2	11.7	5	29.4	5	29.4	2	11.7	3	17.6
Work/prod.	18	1	5.5	--	---	9	50.0	6	33.3	2	11.1
Work/mat'ls.	18	2	11.1	4	22.2	8	44.4	2	11.1	2	11.1
Work/mach's.	17	7	41.1	7	41.1	2	11.7	--	---	1	5.8
Work draw. &rep	17	2	11.7	--	---	6	35.2	4	23.5	5	29.4
Work/person.	18	--	---	--	---	1	5.5	8	44.4	9	50.0
Math.	18	--	---	2	11.1	10	55.5	3	16.6	2	11.1
Sc. & tech.	17	3	17.6	6	35.2	3	17.6	2	11.7	3	17.6
Comm.	18	1	5.5	1	5.5	1	5.5	7	38.8	8	44.4
Mgt. &hum rel.	18	--	---	--	---	5	27.7	6	33.3	7	38.8
Acc'tg. & bus.	18	1	5.5	1	5.5	8	44.4	4	22.2	4	22.2
Totals	194	19	9.79	26	13.30	58	29.38	44	22.68	46	23.71

1. For full title of areas see question 17 - Student Form

TABLE G.12.--Office supervisors: student perception of
competency by area. Question 18-B.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	16	1	6.2	1	6.2	9	56.2	4	25.0	1	6.2
Work/prod.	17	1	5.8	1	5.8	5	29.4	9	52.9	1	5.8
Work/mat'ls.	16	1	6.2	2	12.5	8	50.0	5	31.2	--	---
Work/mach's.	16	3	18.7	2	12.5	9	56.2	2	12.5	--	---
Work draw. &rep	17	--	---	2	12.5	3	18.7	9	56.2	2	12.5
Work/person.	17	--	---	1	5.8	3	17.6	10	58.8	3	17.6
Math.	16	--	---	1	6.2	5	31.2	10	62.5	--	---
Sc. & tech.	16	3	18.7	6	37.5	4	25.0	3	18.7	--	---
Comm.	16	--	---	2	12.5	4	25.0	9	56.2	1	6.2
Mgt. &hum rel.	16	--	---	2	12.5	4	25.0	10	62.5	--	---
Acc'tg. & bus.	16	1	6.2	3	18.7	5	31.2	6	37.5	1	6.2
Totals	179	10	5.58	23	12.84	59	32.96	77	43.01	9	5.02

1. For full title of areas see question 18 - Student Form

TABLE G.13.--Office supervisors: management perception
of need by area. Question 12-B.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	16	3	18.75	7	43.75	3	18.75	1	6.25	1	6.25
Work/prod.	16	4	25.00	4	25.00	7	43.75	--	---	--	---
Work/mat'ls.	16	5	31.25	6	37.50	3	18.75	--	---	1	6.25
Work/mach's.	16	7	43.75	6	37.50	2	12.50	--	---	--	---
Work draw. &rep	16	1	6.25	--	---	4	25.00	5	31.25	6	37.50
Work/person.	16	--	---	--	---	2	12.50	7	43.75	5	43.75
Math.	16	1	6.25	3	18.75	8	50.00	4	25.00	--	---
Sc. & tech.	16	1	6.25	5	31.25	8	50.00	1	6.25	--	---
Comm.	16	--	---	--	---	1	6.25	7	43.75	8	50.00
Mgt. &hum rel.	16	--	---	--	---	2	12.50	7	43.75	7	43.75
Acc'tg. & bus.	16	--	---	--	---	3	18.75	4	25.00	9	56.25
Totals	176	22	12.50	31	17.61	43	24.43	36	20.45	37	21.02

Importance to Job

1. For full title of areas see question 12 - Management Form.

TABLE G.14.--Office supervisors: management perception
of competency by area. Question 13-B.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	17	2	11.76	3	17.65	7	41.18	2	11.76	1	5.88
Work/prod.	17	2	11.76	3	17.65	7	41.18	3	17.65	--	---
Work/mat'ls.	17	2	11.76	6	35.29	6	35.29	1	5.88	--	---
Work/mach's.	17	3	17.65	5	29.41	5	29.41	1	5.88		
Work draw.&rep	17	--	---	2	11.76	5	29.41	6	35.29	3	17.65
Work/person.	17	--	---	--	---	5	29.41	10	58.82	1	5.88
Math.	17	--	---	5	29.41	3	17.65	4	29.41	3	17.65
Sc. & tech.	17	--	---	6	35.29	5	29.41	3	17.65	--	---
Comm.	17	--	---	2	11.76	8	47.06	3	17.65	3	17.65
Mgt. &hum rel.	17	--	---	3	17.65	7	41.18	4	23.53	2	11.76
Acc'tg. & bus.	17	--	---	3	17.65	1	5.88	6	35.29	6	35.29
Totals	187	9	4.81	38	20.32	59	31.55	43	22.99	19	10.16

Present Knowledge

1. For full title of areas see question 13 - Management Form.

TABLE G.15.--General foremen: student perception of need by area. Question 17-C.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	37	3	8.1	2	5.4	10	27.0	7	18.9	15	40.5
Work/prod.	36	--	---	2	5.5	9	25.0	10	27.7	15	41.6
Work/mat'ls.	36	1	2.7	2	5.5	12	33.3	11	30.5	10	27.7
Work/mach's.	36	2	5.5	4	11.1	10	27.7	8	22.2	12	33.3
Work draw. &rep	35	3	8.5	3	8.5	10	28.5	7	20.0	12	34.2
Work/person.	38	--	---	1	2.6	5	13.1	16	42.1	16	42.1
Math.	33	--	---	3	9.0	16	48.4	12	36.3	2	6.0
Sc. & tech.	42	4	9.5	6	14.2	14	33.3	16	38.0	2	4.7
Comm.	34	--	---	1	2.9	10	29.4	13	38.2	10	29.4
Mgt. &hum rel.	36	--	---	--	---	9	25.0	14	38.8	13	36.1
Acc'tg. & bus.	34	8	23.5	13	38.2	11	32.3	2	5.8	--	---
Totals	397	21	5.28	37	9.31	116	29.21	116	29.21	107	26.95

Header: Need to Know

1. For full title of areas see question 17 - Student Form.

TABLE G.16.--General foremen: student perception of competency by area. Question 18-C.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	35	1	2.8	3	8.5	8	22.8	18	51.4	5	14.2
Work/prod.	35	--	---	2	5.7	17	48.5	13	37.1	3	8.5
Work/mat'ls.	35	--	---	2	5.7	16	45.7	14	40.0	3	8.5
Work/mach's.	34	1	2.9	3	8.8	13	38.2	12	35.2	5	14.7
Work draw.&rep	33	2	6.0	5	15.1	11	33.3	14	42.4	1	3.0
Work/person.	36	--	---	3	8.3	10	27.7	19	52.7	4	11.1
Math.	33	1	3.0	6	18.1	16	48.4	9	27.2	1	3.0
Sc. & tech.	31	7	22.5	12	38.7	7	22.5	5	16.1	--	---
Comm.	33	1	3.0	9	27.2	14	42.4	7	21.2	2	6.0
Mgt. &hum rel.	34	1	2.9	8	23.5	16	47.0	6	17.6	3	8.8
Acc'tg. & bus.	31	13	41.9	9	29.0	5	16.1	1	3.2	3	9.6
Totals	370	27	7.29	62	16.75	133	35.92	118	31.89	30	8.10

1. For full title of areas see question 18 - Student Form.

TABLE G.17.--General foremen: management perception
of need by area. Question 12-C.

AREA [1]	N	Importance to Job									
		None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	--	---	--	---	2	13.33	3	20.00	8	53.33
Work/prod.	15	--	---	--	---	--	---	5	33.33	8	53.33
Work/mat'ls.	15	--	---	--	---	2	13.33	5	33.33	6	40.00
Work/mach's.	15	--	---	--	---	2	13.33	4	26.67	7	46.67
Work draw. &rep	15	--	---	2	13.33	1	6.67	3	20.00	7	46.67
Work/person.	15	--	---	--	---	--	---	5	33.33	8	53.33
Math.	15	2	13.33	1	6.67	5	33.33	4	26.67	1	6.67
Sc. & tech.	15	2	13.33	--	---	6	40.00	4	26.67	1	6.67
Comm.	15	--	---	--	---	1	6.67	6	40.00	6	40.00
Mgt. &hum rel.	15	--	---	1	6.67	1	6.67	5	33.33	6	40.00
Acc'tg. & bus.	15	2	13.33	--	---	8	53.33	3	20.00	--	---
Totals	165	6	3.63	4	2.42	28	16.96	47	28.48	58	35.15

1. For full title of areas see question 12 - Management Form.

TABLE G.18.--General foremen: management perception
        of competency by area.   Question 13-C.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	--	---	1	6.67	4	26.67	6	40.00	2	13.33
Work/prod.	15	--	---	1	6.67	4	26.67	6	40.00	2	13.33
Work/mat'ls.	15	--	---	2	13.33	5	33.33	4	26.67	2	13.33
Work/mach's.	15	--	---	1	6.67	3	20.00	5	33.33	4	26.67
Work draw. &rep	15	--	---	3	20.00	5	33.33	4	26.67	1	6.67
Work/person.	15	--	---	3	20.00	4	26.67	5	33.33	1	6.67
Math.	15	1	6.67	3	20.00	6	40.00	2	13.33	1	6.67
Sc. & tech.	15	2	13.33	4	26.67	3	20.00	3	20.00	1	6.67
Comm.	15	1	6.67	5	33.33	4	26.67	2	13.33	1	6.67
Mgt. &hum rel.	15	--	---	1	6.67	9	60.00	2	13.33	1	6.67
Acc'tg. & bus.	15	2	13.33	8	53.33	2	13.33	1	6.67	--	---
Totals	165	6	3.63	32	19.39	49	29.69	40	24.24	16	9.69

Present Knowledge

1. For full title of areas see question 13 - Management Form

TABLE G.19.--Superintendents: student perception of need by area. Question 17-D.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	17	--	---	--	---	6	35.2	7	41.1	4	23.5
Work/prod.	16	1	6.2	--	---	3	18.7	5	31.2	7	43.7
Work/mat'ls.	17	--	---	2	11.7	4	23.5	6	35.2	5	29.4
Work/mach's.	18	4	22.2	2	11.1	3	16.6	7	38.8	2	11.1
Work draw.&rep	16	--	---	1	6.2	1	6.2	4	25.0	10	62.5
Work/person.	17	--	---	1	5.8	2	11.7	5	29.4	9	52.9
Math.	16	1	6.2	--	---	6	37.5	5	31.2	4	25.0
Sc. & tech.	16	2	12.5	1	6.2	5	31.2	5	31.2	3	18.7
Comm.	16	1	6.2	--	---	2	12.5	5	31.2	8	50.0
Mgt. &hum rel.	18	--	---	--	---	--	---	7	38.8	11	61.1
Acc'tg. & bus.	17	2	11.7	3	17.6	5	29.4	6	35.2	1	5.8
Totals	184	11	5.97	10	5.43	37	20.10	62	33.69	64	34.78

Need to Know

1. For full title of areas see question 17 - Student Form.

TABLE G.20.--Superintendents: student perception of competency by area. Question 18-D.

AREA[1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	14	--	---	2	14.2	5	35.7	5	35.7	2	14.2
Work/prod.	14	--	---	1	7.1	3	21.4	8	57.1	2	14.2
Work/mat'ls.	13	--	---	3	23.0	4	30.7	6	46.1	--	---
Work/mach's.	12	1	8.3	2	16.6	3	25.0	5	41.6	1	8.3
Work draw. &rep	12	--	---	2	16.6	4	33.3	4	33.3	2	16.6
Work/person.	13	--	---	1	7.6	4	30.7	6	46.1	2	15.3
Math.	12	2	16.6	2	16.6	3	25.0	5	41.6	--	---
Sc. & tech.	12	4	33.3	1	8.3	3	25.0	3	25.0	1	8.3
Comm.	11	1	9.0	--	---	6	54.5	4	36.3	--	---
Mgt. &hum rel.	12	--	---	2	16.6	5	41.6	4	33.3	1	8.3
Acc'tg. & bus.	11	2	18.1	5	45.4	3	27.2	1	9.0	--	---
Totals	136	10	7.35	21	15.44	43	31.61	51	37.50	11	8.08

1. For full title of areas see question 18 - Student Form.

TABLE G.21.--Superintendents: management perception
of need by area. Question 12-D.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	16	1	6.25	2	12.50	1	6.25	4	25.00	6	37.50
Work/prod.	16	--	---	1	6.25	--	---	4	25.00	9	56.25
Work/mat'ls.	16	--	---	1	6.25	1	6.25	5	31.25	7	43.75
Work/mach's.	16	--	---	3	18.75	2	12.50	4	25.00	5	31.25
Work draw. &rep	16	--	---	--	---	--	---	4	25.00	10	62.50
Work/person.	16	--	---	--	---	--	---	5	31.25	9	56.25
Math.	16	--	---	2	12.50	3	18.75	4	25.00	5	31.25
Sc. & tech.	16	--	---	1	6.25	3	18.75	6	37.50	4	25.00
Comm.	16	--	---	--	---	--	---	4	25.00	10	62.00
Mgt. &hum rel.	16	--	---	--	---	--	---	5	31.25	9	56.25
Acc'tg. & bus.	16	1	6.25	1	6.25	4	25.00	4	25.00	4	25.00
Totals	176	2	1.13	11	6.25	14	7.95	49	27.84	78	44.31

The heading *Importance to Job* spans all the N/% columns.

1. For full title of areas see question 12 - Management Form.

TABLE G.22.--Superintendents: management perception
of competency by area. Question 13-D.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	--	---	1	6.67	1	6.67	6	40.00	4	26.67
Work/prod.	15	--	---	1	6.67	--	---	5	33.33	6	40.00
Work/mat'ls.	15	--	---	1	6.67	2	13.33	5	33.33	4	26.67
Work/mach's.	15	--	---	1	6.67	2	13.33	5	33.33	4	26.67
Work draw. &rep	15	--	---	1	6.67	4	26.67	4	26.67	3	20.00
Work/person.	15	--	---	--	---	3	20.00	7	46.67	2	13.33
Math.	15	--	---	1	6.67	5	33.33	5	33.33	1	6.67
Sc. & tech.	15	--	---	4	26.67	5	33.33	1	6.67	2	13.33
Comm.	15	--	---	2	13.33	5	33.33	2	13.33	3	20.00
Mgt. &hum rel.	15	--	---	--	---	6	40.00	5	33.33	1	6.67
Acc'tg. & bus.	15	--	---	4	26.67	5	33.33	2	13.33	1	6.67
Totals	165	--	---	16	9.69	38	23.03	47	28.48	31	18.78

Table title: Present Knowledge

1. For full title of areas see question 13 - Management Form.

TABLE G.23.--Division or department heads: student perception of need by area. Question 17-E.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	39	4	10.2	6	15.3	18	46.1	4	10.2	7	17.9
Work/prod.	39	2	5.1	4	10.2	15	38.4	9	23.0	9	23.0
Work/mat'ls.	39	5	12.8	6	15.3	11	28.2	9	23.0	8	20.5
Work/mach's.	40	9	22.3	13	32.5	12	30.0	3	7.5	3	7.5
Work draw. &rep	40	1	2.5	2	5.0	12	30.0	16	40.0	9	22.5
Work/person.	39	--	---	1	2.5	2	5.1	14	35.8	22	56.4
Math.	39	2	5.1	6	15.3	19	48.7	6	15.3	6	15.3
Sc. & tech.	39	3	7.6	8	20.5	18	46.1	9	23.0	1	2.5
Comm.	40	1	2.5	2	5.0	3	7.5	14	35.0	20	50.0
Mgt. &hum rel.	40	--	---	--	---	8	20.0	7	17.5	25	62.5
Acc'tg. & bus.	40	--	---	4	10.0	16	40.0	15	37.5	5	12.5
Totals	434	27	6.22	52	11.98	134	30.87	106	24.42	115	26.49

1. For full title of areas see question 17 - Student Form

TABLE G.24.--Division or department heads: student
perception of competency by area. Question 18-E.

AREA[1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	40	4	10.0	8	20.0	14	35.0	10	25.0	4	10.0
Work/prod.	40	3	7.5	5	12.5	9	22.5	19	47.5	4	10.0
Work/mat'ls.	40	4	10.0	8	20.0	13	32.5	10	25.0	5	12.5
Work/mach's.	40	8	20.0	11	27.5	13	32.5	7	17.5	1	2.5
Work draw. &rep	40	1	2.5	1	2.5	16	40.0	18	45.0	4	10.0
Work/person.	40	--	---	2	5.0	10	25.0	22	55.0	6	15.0
Math.	40	2	5.0	6	15.0	16	40.0	10	25.0	6	15.0
Sc. & tech.	40	4	10.0	11	27.5	11	27.5	12	30.0	2	5.0
Comm.	40	1	2.5	4	10.0	14	35.0	18	45.0	3	7.5
Mgt. &hum rel.	40	--	---	3	7.5	13	32.5	17	42.5	3	17.5
Acc'tg. & bus.	41	3	7.3	10	24.3	21	51.2	5	11.9	2	4.7
Totals	441	30	6.80	69	15.64	150	34.01	131	29.70	40	9.07

1. For full title of areas see question 18 - Student Form.

TABLE G.25.--Division or department heads: management
perception of need by area. Question 12-E.

AREA [1]	N	Importance to Job									
		None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	1	6.67	3	20.00	3	20.00	5	33.33	2	13.33
Work/prod.	15	1	6.67	2	13.33	2	13.33	2	13.33	7	46.67
Work/mat'ls.	15	1	6.67	1	6.67	4	26.67	5	33.33	4	26.67
Work/mach's.	15	1	6.67	2	13.33	6	40.00	2	13.33	3	20.00
Work draw. &rep	15	--	---	--	---	--	---	6	40.00	8	53.33
Work/person.	15	--	---	--	---	--	---	5	33.33	10	66.67
Math.	15	--	---	3	20.00	5	33.33	5	33.33	2	13.33
Sc. & tech.	15	--	---	1	6.67	6	40.00	5	33.33	2	13.33
Comm.	15	--	---	--	---	--	---	4	26.67	11	73.33
Mgt. &hum rel.	15	--	---	--	---	--	---	6	40.00	9	60.00
Acc'tg. & bus.	15	--	---	1	6.67	5	33.33	3	20.00	6	40.00
Totals	165	4	2.42	13	7.87	31	18.78	48	29.09	64	38.78

1. For full title of areas see question 12 - Management Form.

TABLE G.26.--Division or department heads: management
perception of competency by area. Question 13-E.

AREA[1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	14	--	---	1	7.14	6	42.86	2	14.29	3	21.43
Work/prod.	14	--	---	1	7.14	3	21.43	4	35.71	3	21.43
Work/mat'ls.	14	--	---	1	7.14	5	35.71	3	21.43	4	28.57
Work/mach's.	14	--	---	2	14.29	4	28.57	4	28.57	2	14.29
Work draw. &rep	14	--	---	--	---	5	35.71	3	21.43	4	28.57
Work/person.	14	--	---	--	---	4	28.57	8	57.14	5	7.14
Math.	14	--	---	1	7.14	8	57.14	4	28.58	--	---
Sc. & tech.	14	--	---	2	14.29	4	28.57	5	35.71	1	7.14
Comm.	14	--	---	1	7.14	3	21.43	7	50.00	2	14.29
Mgt. &hum rel.	14	--	---	1	7.14	2	14.29	9	64.29	1	7.14
Acc'tg. & bus.	14	--	---	1	7.14	7	50.00	4	28.57	1	7.14
Totals	154	--	---	11	7.14	51	33.11	53	34.41	26	16.88

1. For full title of areas see question 13 - Management Form.

TABLE G.27.--Engineering group supervisors: student
perception of need by area. Question 17-F.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	47	--	---	6	12.7	17	36.1	14	29.7	10	21.2
Work/prod.	47	--	---	3	6.3	18	38.2	13	27.6	13	27.6
Work/mat'ls.	47	--	---	2	4.2	17	36.1	16	34.0	12	25.5
Work/mach's.	45	2	4.4	5	11.1	18	40.0	12	26.6	8	17.7
Work draw. &rep	49	--	---	1	2.0	5	10.2	14	28.5	29	59.1
Work/person.	48	--	---	--	---	8	16.6	26	54.1	14	29.1
Math.	49	--	---	1	2.0	14	28.5	21	42.8	13	26.5
Sc. & tech.	48	--	---	3	6.2	17	35.4	15	31.2	13	27.0
Comm.	45	--	---	--	---	14	31.1	17	37.7	14	31.1
Mgt. &hum rel.	48	--	---	2	4.1	11	22.9	21	43.7	14	29.1
Acc'tg. & bus.	46	2	4.3	12	26.0	29	63.0	1	2.1	2	4.3
Totals	519	4	.77	35	6.74	168	32.36	170	32.75	142	27.36

1. For full title of areas see question 17 - Student Form.

TABLE G.28.--Engineering group supervisors: student
perception of competency by area. Question 18-F.

AREA [1]	N	Self Rating									
		Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	44	1	2.2	7	15.9	14	31.8	16	36.3	6	13.6
Work/prod.	45	2	4.4	3	6.6	20	44.4	15	33.3	5	11.1
Work/mat'ls.	45	--	---	3	6.6	26	57.7	13	28.8	3	6.6
Work/mach's.	43	2	4.6	8	18.6	16	37.2	14	32.5	3	6.9
Work draw. &rep	45	--	---	1	2.2	7	15.5	23	51.1	14	31.1
Work/person.	45	--	---	3	6.6	16	35.5	22	48.8	4	8.8
Math.	46	1	2.1	7	15.2	23	50.0	13	28.2	2	4.3
Sc. & tech.	45	3	6.6	10	22.2	17	37.7	10	22.2	5	11.1
Comm.	44	--	---	8	18.1	16	36.3	20	45.4	--	---
Mgt. &hum rel.	45	--	---	10	22.2	23	51.1	11	24.4	1	2.2
Acc'tg. & bus.	42	12	28.5	17	40.4	11	26.1	2	4.7	--	---
Totals	489	21	4.29	77	15.74	189	38.65	159	32.51	43	8.79

1. For full title of areas see question 18 - Student Form.

TABLE G.29.--Engineering group supervisors: management
perception of need by area. Question 12-F.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	1	6.67	1	6.67	3	20.00	3	20.00	5	33.33
Work/prod.	15	1	6.67	--	---	4	26.67	5	33.33	3	20.00
Work/mat'ls.	15	1	6.67	--	---	3	20.00	4	26.67	5	33.33
Work/mach's.	15	1	6.67	2	13.33	1	6.67	4	26.67	5	33.33
Work draw. &rep	15	--	---	--	---	1	6.67	2	13.33	10	66.67
Work/person.	15	--	---	--	---	3	20.00	7	46.67	3	20.00
Math.	15	--	---	--	---	1	6.67	5	33.33	7	46.67
Sc. & tech.	15	--	---	--	---	--	---	3	20.00	10	66.67
Comm.	15	--	---	--	---	4	26.67	4	26.67	5	33.33
Mgt. &hum rel.	15	--	---	1	6.67	4	26.67	4	26.67	4	26.67
Acc'tg. & bus.	15	--	---	1	6.67	4	26.67	6	40.00	2	13.33
Totals	165	4	2.42	5	3.03	28	16.96	47	28.48	59	35.75

1. For full title of areas see question 12 - Management Form.

TABLE G.30.--Engineering group supervisors: management perception of competency by area. Question 13-F.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	15	--	---	1	6.67	4	26.67	5	33.33	3	20.00
Work/prod.	15	--	---	2	13.33	4	26.67	5	33.33	2	13.33
Work/mat'ls.	15	--	---	1	6.67	3	20.00	6	40.00	3	20.00
Work/mach's.	15	--	---	4	26.67	1	6.67	4	26.67	5	26.67
Work draw. &rep	15	--	---	--	---	3	20.00	2	13.33	8	53.33
Work/person.	15	--	---	2	13.33	5	33.33	5	33.33	1	6.67
Math.	15	--	---	2	13.33	2	13.33	8	53.33	1	6.67
Sc. & tech.	15	--	---	2	13.33	3	20.00	4	26.67	4	26.67
Comm.	15	--	---	3	20.00	5	33.33	4	26.67	1	6.67
Mgt. &hum rel.	15	--	---	4	26.67	4	26.67	5	33.33	--	---
Acc'tg. & bus.	15	1	6.67	3	20.00	7	46.67	2	13.33	--	---
Totals	165	1	.60	23	13.93	41	24.84	50	30.30	28	16.96

1. For full title of areas see question 13 - Management Form.

TABLE G.31.--Vice-presidents: student perception of need by area. Question 17-G.

AREA [1]	N	Need to Know									
		None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	4	1	25.0	--	---	2	50.0	--	----	1	25.0
Work/prod.	5	2	40.0	--	---	2	40.0	--	---	1	20.0
Work/mat'ls.	4	1	25.0	--	---	2	50.0	--	---	1	25.0
Work/mach's.	4	1	25.0	--	---	3	75.0	--	---	--	---
Work draw. &rep	5	--	---	1	20.0	1	20.0	1	20.0	2	40.0
Work/person.	4	--	---	--	---	1	25.0	3	75.0	--	---
Math.	4	--	---	--	---	3	75.0	--	---	1	25.0
Sc. & tech.	4	--	---	--	---	2	50.0	2	50.0	--	---
Comm.	5	--	---	--	---	1	20.0	2	40.0	2	40.0
Mgt. &hum rel.	5	--	---	--	---	2	40.0	1	20.0	2	40.0
Acc'tg. & bus.	5	--	---	--	---	1	20.0	1	20.0	3	60.0
Totals	49	5	10.20	1	2.04	20	40.81	10	20.40	13	26.53

1. For full title of areas see question 17 - Student Form.

TABLE G.32.--Vice-presidents: student perception of
competency by area. Question 18-G.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	4	--	---	1	25.0	1	25.0	2	50.0	--	---
Work/prod.	4	1	25.0	1	25.0	--	---	1	25.0	1	25.0
Work/mat'ls.	4	1	25.0	1	25.0	1	25.0	--	---	1	25.0
Work/mach's.	4	1	25.0	--	---	2	50.0	1	25.0	--	---
Work draw. &rep	4	--	---	--	---	3	75.0	1	25.0	--	---
Work/person.	4	1	25.0	--	---	--	---	3	75.0	--	---
Math.	4	--	---	--	---	1	25.0	2	50.0	1	25.0
Sc. & tech.	4	--	---	--	---	1	25.0	2	50.0	1	25.0
Comm.	4	--	---	1	25.0	1	25.0	2	50.0	--	---
Mgt. &hum rel.	4	--	---	--	---	2	50.0	2	50.0	--	---
Acc'tg. & bus.	4	--	---	--	---	2	50.0	2	50.0	--	---
Totals	44	4	9.09	4	9.09	14	31.81	18	40.90	4	9.09

Self Rating

1. For full title of areas see question 18 - Student Form.

TABLE G.33.--Vice-presidents: management perception
of need by area. Question 12-G.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	12	1	8.33	3	25.00	3	25.00	1	8.33	5	16.67
Work/prod.	12	1	8.33	2	16.67	4	33.33	1	8.33	2	16.67
Work/mat'ls.	12	1	8.33	3	25.00	3	25.00	1	8.33	2	16.67
Work/mach's.	12	1	8.33	4	33.33	2	16.67	1	8.33	2	16.67
Work draw. &rep	12	--	---	--	---	1	8.33	4	33.33	5	41.67
Work/person.	12	--	---	--	---	--	---	3	25.00	8	66.67
Math.	12	--	---	1	8.33	4	33.33	3	25.00	2	16.67
Sc. & tech.	12	--	---	2	16.67	1	8.33	5	41.67	2	16.67
Comm.	12	--	---	--	---	--	---	3	25.00	8	66.67
Mgt. &hum rel.	12	--	---	--	---	--	---	2	16.67	8	66.67
Acc'tg. & bus.	12	--	---	1	8.33	--	---	2	16.67	8	66.67
Totals	132	4	3.03	16	12.12	18	13.63	26	19.69	52	29.54

Importance to Job

1. For full title of areas see question 12 - Management Form.

TABLE G.34.--Vice-presidents: management perception of competency by area. Question 13-G.

AREA [1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	12	1	8.33	2	16.67	1	8.33	2	16.67	1	8.33
Work/prod.	12	--	---	3	25.00	--	---	3	25.00	1	8.33
Work/mat'ls.	12	--	---	3	25.00	--	---	2	16.67	2	16.67
Work/mach's.	12	2	16.67	2	16.67	--	---	1	8.33	2	16.67
Work draw. &rep	12	--	---	--	---	2	16.67	1	8.33	5	41.67
Work/person.	12	1	8.33	1	8.33	--	---	2	16.67	3	25.00
Math.	12	--	---	--	---	2	16.67	2	16.67	3	25.00
Sc. & tech.	12	--	---	--	---	1	8.33	3	25.00	2	16.67
Comm.	12	--	---	2	16.67	1	8.33	--	---	5	41.67
Mgt. &hum rel.	12	--	---	1	8.33	1	8.33	2	16.67	3	25.00
Acc'tg. & bus.	12	--	---	--	---	2	16.67	2	16.67	4	33.33
Totals 1	32	4	3.03	14	10.60	10	7.57	20	15.15	31	23.48

1. For full title of areas see question 13 - Management Form.

TABLE C.35.--Presidents: student perception of need
by area. Question 17-H.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	10	1	10.0	2	20.0	1	10.0	5	50.0	1	10.0
Work/prod.	4	--	---	1	25.0	2	50.0	--	---	1	25.0
Work/mat'ls.	4	--	---	2	50.0	1	25.0	--	---	1	25.0
Work/mach's.	4	1	25.0	1	25.0	1	25.0	--	---	1	25.0
Work draw. &rep	6	--	---	2	33.3	2	33.3	--	---	2	33.3
Work/person.	5	--	---	--	---	1	20.0	--	---	4	80.0
Math.	5	--	---	2	40.0	1	20.0	1	20.0	1	20.0
Sc. & tech.	5	--	---	1	20.0	3	60.0	--	---	1	20.0
Comm.	6	--	---	--	---	1	16.6	1	16.6	4	66.6
Mgt. &hum rel.	6	--	---	--	----	2	33.3	--	---	4	66.6
Acc'tg. & bus.	6	--	---	--	---	1	16.6	2	33.3	3	50.0
Totals		61	2	3.27	11	18.03	16	26.22	9	14.75	23	37.70

Header spanning: **Need to Know**

1. For full title of areas see question 17 - Student Form.

TABLE G.36.--Presidents: student perception of
competency by area. Question 18-H.

		Poor		Fair		Average		Good		Excellent	
AREA [1]	N	N	%	N	%	N	%	N	%	N	%
Work/equip.	3	--	---	2	66.6	--	---	--	---	1	33.3
Work/prod.	3	--	---	1	33.3	--	---	1	33.3	1	33.3
Work/mat'ls.	3	--	---	2	66.6	--	---	--	---	1	33.3
Work/mach's.	3	--	---	2	66.6	--	---	--	---	1	33.3
Work draw. &rep	4	--	---	1	25.0	1	25.0	2	50.0	--	---
Work/person.	4	--	---	2	50.0	1	25.0	1	25.0	--	---
Math.	4	--	---	1	25.0	2	50.0	1	25.0	--	---
Sc. & tech.	4	--	---	1	25.0	1	25.0	2	50.0	--	---
Comm.	5	--	---	--	---	2	40.0	2	40.0	1	20.0
Mgt. &hum rel.	4	--	---	1	25.0	1	25.0	2	50.0	--	---
Acc'tg. & bus.	4	1	25.0	--	---	2	50.0	1	25.0	--	---
Totals	41	1	2.43	13	31.70	10	24.39	12	29.26	5	12.19

1. For full title of areas see question 18, Student Form.

TABLE G.37.--Presidents: management perception of need by area. Question 12-H.

AREA [1]	N	Importance to Job									
		None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	11	2	18.18	3	27.27	2	18.18	1	9.09	2	18.18
Work/prod.	11	2	18.18	3	27.27	1	9.09	1	9.09	3	27.27
Work/mat'ls.	11	2	18.18	3	27.27	2	18.18	1	9.09	2	18.18
Work/mach's.	11	2	18.18	4	36.36	2	18.18	--	---	2	18.18
Work draw. &rep	11	--	---	1	9.09	2	18.18	3	27.27	4	36.36
Work/person.	11	--	---	--	---	--	---	2	18.18	8	72.73
Math.	11	--	---	--	---	6	54.55	3	27.27	1	9.09
Sc. & tech.	11	--	---	--	---	5	45.45	3	27.27	2	18.18
Comm.	11	--	---	--	---	--	---	1	9.09	9	81.82
Mgt. &hum rel.	11	--	---	--	---	--	---	2	18.18	8	72.73
Acc'tg. & bus.	11	--	---	--	---	--	---	4	36.36	6	54.55
Totals	121	8	6.61	14	11.57	20	16.52	21	17.35	47	38.84

1. For full title of areas see question 12 - Management Form.

TABLE G.38.--Presidents: management perception of
competency by area. Question 13-H.

AREA [1]	N	Present Knowledge									
		Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	12	--	---	2	16.67	3	25.00	3	25.00	1	8.33
Work/prod.	12	--	---	1	8.33	4	33.33	3	25.00	1	8.33
Work/mat'ls.	12	--	---	2	16.67	3	25.00	3	25.00	1	8.33
Work/mach's.	12	--	---	3	25.00	3	25.00	2	16.67	1	8.33
Work draw.&rep	12	--	---	2	16.67	2	16.67	3	25.00	2	16.67
Work/person.	12	--	---	3	25.00	1	8.33	2	16.67	3	25.00
Math.	12	--	---	2	16.67	3	25.00	4	33.33	1	8.33
Sc. & tech.	12	--	---	1	8.33	3	25.00	3	25.00	1	8.33
Comm.	12	--	---	2	16.67	2	16.67	1	8.33	4	33.33
Mgt. &hum rel.	12	--	---	1	8.33	1	8.33	4	33.33	3	25.00
Acc'tg. & bus.	12	--	---	2	16.67	1	8.33	3	25.00	3	25.00
Totals 1	32	--	---	21	15.90	26	19.69	31	23.48	21	15.90

1. For full title of areas see question 13 - Management Form.

TABLE G.39.--Staff personnel: student perception of
need by area. Question 17-I.

AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	92	7	7.6	12	13.0	37	40.2	11	11.9	25	27.1
Work/prod.	92	6	6.5	10	10.8	26	28.2	30	32.6	20	21.7
Work/mat'ls.	92	9	9.7	18	19.5	19	20.6	20	21.7	26	28.2
Work/mach's.	92	18	19.5	17	18.4	32	34.7	9	9.7	16	17.3
Work draw. &rep	93	1	1.0	12	12.9	20	21.5	24	25.8	36	38.7
Work/person.	100	--	---	2	2.0	14	14.0	28	28.0	50	50.0
Math.	93	2	2.1	11	11.8	33	35.4	32	34.4	15	16.1
Sc. & tech.	91	6	6.5	17	18.6	35	38.4	20	21.9	13	14.2
Comm.	94	4	4.2	6	6.3	20	21.2	28	29.7	36	38.2
Mgt. &hum rel.	104	2	1.9	11	10.5	28	26.9	26	25.0	37	35.5
Acc'tg. & bus.	93	7	7.5	24	25.8	38	40.8	11	11.8	13	13.9
Totals	10	36 62	5.98	140	13.51	302	29.15	239	23.06	287	27.70

1. For full title of areas see question 17 - Student Form.

TABLE G.40.--Staff personnel: student perception of
competency by area. Question 18-I.

AREA [1]	N	Self Rating									
		Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	92	4	4.3	16	17.3	32	34.7	29	31.5	11	11.9
Work/prod.	89	4	4.4	12	13.4	28	31.4	35	39.3	10	11.2
Work/mat'ls.	89	6	6.7	20	22.4	27	30.3	29	32.5	7	7.8
Work/mach's.	88	11	12.5	16	18.1	28	31.8	26	29.5	7	7.9
Work draw. &rep	88	--	---	10	11.3	21	23.8	39	44.3	18	20.4
Work/person.	92	--	---	7	7.6	18	19.5	49	53.2	18	19.5
Math.	91	1	10.1	13	14.2	49	53.8	21	23.0	7	7.6
Sc. & tech.	88	13	14.7	24	27.2	35	39.7	15	17.0	1	1.1
Comm.	89	5	5.6	11	12.3	36	40.4	30	33.7	7	7.8
Mgt. &hum rel.	91	4	4.3	12	13.1	37	40.6	29	31.8	9	9.8
Acc'tg. & bus.	89	17	19.1	19	21.3	32	35.9	16	17.9	5	5.6
Totals	986	65	6.59	160	16.22	343	34.78	318	32.25	100	10.14

1. For full title of areas see question 18 - Student Form.

TABLE G.41.--Staff personnel: management perception
of need by area. Question 12-I.

Importance to Job											
AREA [1]	N	None		Little		Some		Great		Thoroughly	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	13	3	23.08	3	23.08	5	38.46	--	---	--	---
Work/prod.	13	2	15.38	3	23.08	5	38.46	1	7.69	--	---
Work/mat'ls.	13	3	23.08	2	15.38	4	30.77	2	15.38	--	---
Work/mach's.	13	3	23.08	4	30.77	4	30.77	--	---	--	---
Work draw. &rep	13	--	---	--	---	4	30.77	5	38.46	2	15.38
Work/person.	13	--	---	--	---	2	15.38	4	30.77	6	46.15
Math.	13	--	---	1	7.69	6	46.15	4	30.77	1	7.69
Sc. & tech.	13	--	---	1	7.69	5	38.46	5	38.46	--	---
Comm.	13	--	---	--	---	--	---	2	15.38	5	76.92
Mgt. &hum rel.	13	--	---	--	---	2	15.38	4	38.46	5	38.46
Acc'tg. & bus.	13	--	---	1	7.69	2	15.38	4	30.77	5	38.46
Totals	143	11	7.69	15	10.48	39	27.27	31	21.67	24	16.78

1. For full title of areas see question 12 - Management Form.

TABLE G.42.--Staff personnel: management perception
of competency by area. Question 13-I.

		Present Knowledge									
AREA[1]	N	Poor		Fair		Average		Good		Excellent	
		N	%	N	%	N	%	N	%	N	%
Work/equip.	14	3	21.43	2	14.29	4	28.57	2	14.29	--	---
Work/prod.	14	3	21.43	1	7.14	5	35.71	2	14.29	--	---
Work/mat'ls.	14	3	21.43	--	---	6	42.86	2	14.29	--	---
Work/mach's.	14	3	21.43	4	28.57	2	14.29	2	14.29	--	---
Work draw. &rep	14	--	---	2	14.29	4	28.57	5	35.71	1	7.14
Work/person.	14	--	---	1	7.14	4	28.57	5	35.71	2	14.29
Math.	14	1	7.14	1	7.14	6	42.86	3	21.43	--	---
Sc. & tech.	14	1	7.14	--	---	7	50.00	3	21.43	--	---
Comm.	14	--	---	2	14.29	2	14.29	4	28.57	4	28.57
Mgt. &hum rel.	14	--	---	--	---	6	42.86	3	21.43	3	21.43
Acc'tg. & bus.	14	2	14.29	2	14.29	3	21.43	4	28.57	1	7.14
Totals	154	16	10.38	15	9.74	49	31.81	35	22.72	11	7.14

1. For full title of areas see question 13 - Management Form.

APPENDIX H

FCC I AND FCC II VARIABLE COMPUTER
PRINT OUT CODE FORMS

FCC I: STUDENT

BENTON HARBOR-ST. JOSEPH
MANAGEMENT TRAINING STUDY

Field	Question	Variable Name	Column

Card 1

Field	Question	Variable Name	Column
1	Face Sheet	Sex	8
2	Q-S-/Q-1	Kind of Experience	17
3	Q-S-/Q-2-1	Course Taken (Y-N)	18
4	Q-S-1/Q-2-1	Subject Development	19
5	Q-S-1/Q-2-1	Teacher Effectiveness (P-A-G)	20
6	Q-S-1/Q-2-1	Benefit to Job	21
7	Q-S-1/Q-2-2	Course Taken (Y-N)	22
8	Q-S-1/Q-2-2	Subject Development	23
9	Q-S-1/Q-2-2	Teacher Effectiveness (P-A-G)	24
10	Q-S-1/Q-2-2	Benefit to Job	25
11	Q-S-1/Q-2-3	Course Taken (Y-N)	26
12	Q-S-1/Q-2-3	Subject Development	27
13	Q-S-1/Q-2-3	Teacher Effectiveness (P-A-G)	28
14	Q-S-1/Q-2-3	Benefit to Job	29
15	Q-S-1/Q-2-4	Course Taken (Y-N)	30
16	Q-S-1/Q-2-4	Subject Development	31
17	Q-S-1/Q-2-4	Teacher Effectiveness (P-A-G)	32
18	Q-S-1/Q-2-4	Benefit to Job	33
19	Q-S-1/Q-2-5	Course Taken (Y-N)	34
20	Q-S-1/Q-2-5	Subject Development	35
21	Q-S-1/Q-2-5	Teacher Effectiveness (P-A-G)	36
22	Q-S-1/Q-2-5	Benefit to Job	37
23	Q-S-1/Q-2-6	Course Taken (Y-N)	38
24	Q-S-1/Q-2-6	Subject Development	39
25	Q-S-1/Q-2-6	Teacher Effectiveness (P-A-G)	40
26	Q-S-1/Q-2-6	Benefit to Job	41
27	Q-S-1/Q-2-7	Course Taken (Y-N)	42
28	Q-S-1/Q-2-7	Subject Development	43
29	Q-S-1/Q-2-7	Teacher Effectiveness (P-A-G)	44
30	Q-S-1/Q-2-7	Benefit to Job	45
31	Q-S-1/Q-2-8	Course Taken (Y-N)	46
32	Q-S-1/Q-2-8	Subject Development	47
33	Q-S-1/Q-2-8	Teacher Effectiveness (P-A-G)	48
34	Q-S-1/Q-2-8	Benefit to Job	49
35	Q-S-1/Q-2-9	Course Taken (Y-N)	50
36	Q-S-1/Q-2-9	Subject Development	51

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
37	Q-S-1/Q-2-9	Teacher Effectiveness (P-A-G)	52
38	Q-S-1/Q-2-9	Benefit to Job	53
39	Q-S-1/Q-2-10	Course Taken (Y-N)	54
40	Q-S-1/Q-2-10	Subject Development	55
41	Q-S-1/Q-2-10	Teacher Effectiveness (P-A-G)	56
42	Q-S-1/Q-2-10	Benefit to Job	57
43	Q-S-1/Q-2-11	Course Taken (Y-N)	58
44	Q-S-1/Q-2-11	Subject Development	59
45	Q-S-1/Q-2-11	Teacher Effectiveness (P-A-G)	60
46	Q-S-1/Q-2-11	Benefit to Job	61
47	Q-S-1/Q-2-12	Course Taken (Y-N)	62
48	Q-S-1/Q-2-12	Subject Development	63
49	Q-S-1/Q-2-12	Teacher Effectiveness (P-A-G)	64
50	Q-S-1/Q-2-12	Benefit to Job	65
51	Q-S-1/Q-2-13	Course Taken (Y-N)	66
52	Q-S-1/Q-2-13	Subject Development	67
53	Q-S-1/Q-2-13	Teacher Effectiveness (P-A-G)	68
54	Q-S-1/Q-2-13	Benefit to Job	69
55	Q-S-1/Q-2-14	Course Taken (Y-N)	70
56	Q-S-1/Q-2-14	Subject Development	71
57	Q-S-1/Q-2-14	Teacher Effectiveness (P-A-G)	72
58	Q-S-1/Q-2-14	Benefit to Job	73

Card 2

Field	Question	Variable Name	Column
59	Q-S-1/Q-2-15	Course Taken (Y-N)	17
60	Q-S-1/Q-2-15	Subject Development	18
61	Q-S-1/Q-2-15	Teacher Effectiveness (P-A-G)	19
62	Q-S-1/Q-2-15	Benefit to Job	20
63	Q-S-1/Q-2-16	Course Taken (Y-N)	21
64	Q-S-1/Q-2-16	Subject Development	22
65	Q-S-1/Q-2-16	Teacher Effectiveness (P-A-G)	23
66	Q-S-1/Q-2-16	Benefit to Job	24
67	Q-S-1/Q-2-17	Course Taken (Y-N)	25
68	Q-S-1/Q-2-17	Subject Development	26
69	Q-S-1/Q-2-17	Teacher Effectiveness (P-A-G)	27
70	Q-S-1/Q-2-17	Benefit to Job	28
71	Q-S-1/Q-2-18	Course Taken (Y-N)	29
72	Q-S-1/Q-2-18	Subject Development	30
73	Q-S-1/Q-2-18	Teacher Effectiveness (P-A-G)	31
74	Q-S-1/Q-2-18	Benefit to Job	32
75	Q-S-1/Q-2-19	Course Taken (Y-N)	33
76	Q-S-1/Q-2-19	Subject Development	34
77	Q-S-1/Q-2-19	Teacher Effectiveness (P-A-G)	35
78	Q-S-1/Q-2-19	Benefit to Job	36
79	Q-S-1/Q-2-20	Course Taken (Y-N)	37
80	Q-S-1/Q-2-20	Subject Development	38

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
81	Q-S-1/Q-2-20	Teacher Effectiveness (P-A-G)	39
82	Q-S-1/Q-2-20	Benefit to Job	40
83	Q-S-1/Q-2-21	Course Taken (Y-N)	41
84	Q-S-1/Q-2-21	Subject Development	42
85	Q-S-1/Q-2-21	Teacher Effectiveness (P-A-G)	43
86	Q-S-1/Q-2-21	Benefit to Job	44
87	Q-S-1/Q-2-22	Course Taken (Y-N)	45
88	Q-S-1/Q-2-22	Subject Development	46
89	Q-S-1/Q-2-22	Teacher Effectiveness (P-A-G)	47
90	Q-S-1/Q-2-22	Benefit to Job	48
91	Q-S-1/Q-2-23	Course Taken (Y-N)	49
92	Q-S-1/Q-2-23	Subject Development	50
93	Q-S-1/Q-2-23	Teacher Effectiveness (P-A-G)	51
94	Q-S-1/Q-2-23	Benefit to Job	52
95	Q-S-1/Q-2-24	Course Taken (Y-N)	53
96	Q-S-1/Q-2-24	Subject Development	54
97	Q-S-1/Q-2-24	Teacher Effectiveness (P-A-G)	55
98	Q-S-1/Q-2-24	Benefit to Job	56
99	Q-S-1/Q-2-25	Course Taken (Y-N)	57
100	Q-S-1/Q-2-25	Subject Development	58
101	Q-S-1/Q-2-25	Teacher Effectiveness (P-A-G)	59
102	Q-S-1/Q-2-25	Benefit to Job	60
103	Q-S-1/Q-2-26	Course Taken (Y-N)	61
104	Q-S-1/Q-2-26	Subject Development	62
105	Q-S-1/Q-2-26	Teacher Effectiveness (P-A-G)	63
106	Q-S-1/Q-2-26	Benefit to Job	64
107	Q-S-1/Q-2-27	Course Taken (Y-N)	65
108	Q-S-1/Q-2-27	Subject Development	66
109	Q-S-1/Q-2-27	Teacher Effectiveness (P-A-G)	67
110	Q-S-1/Q-2-27	Benefit to Job	68
111	Q-S-1/Q-2-28	Course Taken (Y-N)	69
112	Q-S-1/Q-2-28	Subject Development	70
113	Q-S-1/Q-2-28	Teacher Effectiveness (P-A-G)	71
114	Q-S-1/Q-2-28	Benefit to Job	72
115	Q-S-1/Q-2-29	Course Taken (Y-N)	73
116	Q-S-1/Q-2-29	Subject Development	74
117	Q-S-1/Q-2-29	Teacher Effectiveness (P-A-G)	75
118	Q-S-1/Q-2-29	Benefit to Job	76

Card 3

Field	Question	Variable Name	Column
119	Q-S-1/Q-2-30	Course Taken (Y-N)	17
120	Q-S-1/Q-2-30	Subject Development	18
121	Q-S-1/Q-2-30	Teacher Effectiveness (P-A-G)	19
122	Q-S-1/Q-2-30	Benefit to Job	20
123	Q-S-1/Q-2-31	Course Taken (Y-N)	21
124	Q-S-1/Q-2-31	Subject Development	22

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
125	Q-S-1/Q-2-31	Teacher Effectiveness (P-A-G)	23
126	Q-S-1/Q-2-31	Benefit to Job	24
127	Q-S-1/Q-2-32	Course Taken (Y-N)	25
128	Q-S-1/Q-2-32	Subject Development	26
129	Q-S-1/Q-2-32	Teacher Effectiveness (P-A-G)	27
130	Q-S-1/Q-2-32	Benefit to Job	28
131	Q-S-1/Q-2-33	Course Taken (Y-N)	29
132	Q-S-1/Q-2-33	Subject Development	30
133	Q-S-1/Q-2-33	Teacher Effectiveness (P-A-G)	31
134	Q-S-1/Q-2-33	Benefit to Job	32
135	Q-S-1/Q-2-34	Course Taken (Y-N)	33
136	Q-S-1/Q-2-34	Subject Development	34
137	Q-S-1/Q-2-34	Teacher Effectiveness (P-A-G)	35
138	Q-S-1/Q-2-34	Benefit to Job	36
139	Q-S-1/Q-2-35	Course Taken (Y-N)	37
140	Q-S-1/Q-2-35	Subject Development	38
141	Q-S-1/Q-2-35	Teacher Effectiveness (P-A-G)	39
142	Q-S-1/Q-2-35	Benefit to Job	40
143	Q-S-1/Q-2-36	Course Taken (Y-N)	41
144	Q-S-1/Q-2-36	Subject Development	42
145	Q-S-1/Q-2-36	Teacher Effectiveness (P-A-G)	43
146	Q-S-1/Q-2-36	Benefit to Job	44
147	Q-S-1/Q-2-37	Course Taken (Y-N)	45
148	Q-S-1/Q-2-37	Subject Development	46
149	Q-S-1/Q-2-37	Teacher Effectiveness (P-A-G)	47
150	Q-S-1/Q-2-37	Benefit to Job	48
151	Q-S-1/Q-2-38	Course Taken (Y-N)	49
152	Q-S-1/Q-2-38	Subject Development	50
153	Q-S-1/Q-2-38	Teacher Effectiveness (P-A-G)	51
154	Q-S-1/Q-2-38	Benefit to Job	52
155	Q-S-1/Q-2-39	Course Taken (Y-N)	53
156	Q-S-1/Q-2-39	Subject Development	54
157	Q-S-1/Q-2-39	Teacher Effectiveness (P-A-G)	55
158	Q-S-1/Q-2-39	Benefit to Job	56
159	Q-S-1/Q-2-40	Course Taken (Y-N)	57
160	Q-S-1/Q-2-40	Subject Development	58
161	Q-S-1/Q-2-40	Teacher Effectiveness (P-A-G)	59
162	Q-S-1/Q-2-40	Benefit to Job	60
163	Q-S-1/Q-2-41	Course Taken (Y-N)	61
164	Q-S-1/Q-2-41	Subject Development	62
165	Q-S-1/Q-2-41	Teacher Effectiveness (P-A-G)	63
166	Q-S-1/Q-2-41	Benefit to Job	64
167	Q-S-1/Q-2-42	Course Taken (Y-N)	65
168	Q-S-1/Q-2-42	Subject Development	66
169	Q-S-1/Q-2-42	Teacher Effectiveness (P-A-G)	67
170	Q-S-1/Q-2-42	Benefit to Job	68
171	Q-S-1/Q-2-43	Course Taken (Y-N)	69
172	Q-S-1/Q-2-43	Subject Development	70

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
173	Q-S-1/Q-2-43	Teacher Effectiveness (P-A-G)	71
174	Q-S-1/Q-2-43	Benefit to Job	72
175	Q-S-1/Q-2-44	Course Taken (Y-N)	73
176	Q-S-1/Q-2-44	Subject Development	74
177	Q-S-1/Q-2-44	Teacher Effectiveness (P-A-G)	75
178	Q-S-1/Q-2-44	Benefit to Job	76

Card 4

Field	Question	Variable Name	Column
179	Q-S-1/Q-2-45	Course Taken (Y-N)	17
180	Q-S-1/Q-2-45	Subject Development	18
181	Q-S-1/Q-2-45	Teacher Effectiveness (P-A-G)	19
182	Q-S-1/Q-2-45	Benefit to Job	20
183	Q-S-1/Q-2-46	Course Taken (Y-N)	21
184	Q-S-1/Q-2-46	Subject Development	22
185	Q-S-1/Q-2-46	Teacher Effectiveness (P-A-G)	23
186	Q-S-1/Q-2-46	Benefit to Job	24
187	Q-S-1/Q-2-47	Course Taken (Y-N)	25
188	Q-S-1/Q-2-47	Subject Development	26
189	Q-S-1/Q-2-47	Teacher Effectiveness (P-A-G)	27
190	Q-S-1/Q-2-47	Benefit to Job	28
191	Q-S-1/Q-2-48	Course Taken (Y-N)	29
192	Q-S-1/Q-2-48	Subject Development	30
193	Q-S-1/Q-2-48	Teacher Effectiveness (P-A-G)	31
194	Q-S-1/Q-2-48	Benefit to Job	32
195	Q-S-1/Q-2-49	Course Taken (Y-N)	33
196	Q-S-1/Q-2-49	Subject Development	34
197	Q-S-1/Q-2-49	Teacher Effectiveness (P-A-G)	35
198	Q-S-1/Q-2-49	Benefit to Job	36
199	Q-S-1/Q-2-50	Course Taken (Y-N)	37
200	Q-S-1/Q-2-50	Subject Development	38
201	Q-S-1/Q-2-50	Teacher Effectiveness (P-A-G)	39
202	Q-S-1/Q-2-50	Benefit to Job	40
203	Q-S-1/Q-2-51	Course Taken (Y-N)	41
204	Q-S-1/Q-2-51	Subject Development	42
205	Q-S-1/Q-2-51	Teacher Effectiveness (P-A-G)	43
206	Q-S-1/Q-2-51	Benefit to Job	44
207	Q-S-1/Q-2-52	Course Taken (Y-N)	45
208	Q-S-1/Q-2-52	Subject Development	46
209	Q-S-1/Q-2-52	Teacher Effectiveness (P-A-G)	47
210	Q-S-1/Q-2-52	Benefit to Job	48
211	Q-S-1/Q-2 53	Course Taken (Y-N)	49
212	Q-S-1/Q-2-53	Subject Development	50
213	Q-S-1/Q-2-53	Teacher Effectiveness (P-A-G)	51
214	Q-S-1/Q-2-53	Benefit to Job	52
215	Q-S-1/Q-2-54	Course Taken (Y-N)	53
216	Q-S-1/Q-2-54	Subject Development	54

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
217	Q-S-1/Q-2-54	Teacher Effectiveness (P-A-G)	55
218	Q-S-1/Q-2-54	Benefit to Job	56
219	Q-S-1/Q-2-55	Course Taken (Y-N)	57
220	Q-S-1/Q-2-55	Subject Development	58
221	Q-S-1/Q-2-55	Teacher Effectiveness (P-A-G)	59
222	Q-S-1/Q-2-55	Benefit to Job	60
223	Q-S-1/Q-2-56	Course Taken (Y-N)	61
224	Q-S-1/Q-2-56	Subject Development	62
225	Q-S-1/Q-2-56	Teacher Effectiveness (P-A-G)	63
226	Q-S-1/Q-2-56	Benefit to Job	64
227	Q-S-1/Q-2-57	Course Taken (Y-N)	65
228	Q-S-1/Q-2-57	Subject Development	66
229	Q-S-1/Q-2-57	Teacher Effectiveness (P-A-G)	67
230	Q-S-1/Q-2-57	Benefit to Job	68
231	Q-S-1/Q-2-58	Course Taken (Y-N)	69
232	Q-S-1/Q-2-58	Subject Development	70
233	Q-S-1/Q-2-58	Teacher Effectiveness (P-A-G)	71
234	Q-S-1/Q-2-58	Benefit to Job	72
235	Q-S-1/Q-2-59	Course Taken (Y-N)	73
236	Q-S-1/Q-2-59	Subject Development	74
237	Q-S-1/Q-2-59	Teacher Effectiveness (P-A-G)	75
238	Q-S-1/Q-2-59	Benefit to Job	76

Card 5

Field	Question	Variable Name	Column
239	Q-S-1/Q-2-60	Course Taken (Y-N)	17
240	Q-S-1/Q-2-60	Subject Development	18
241	Q-S-1/Q-2-60	Teacher Effectiveness (P-A-G)	19
242	Q-S-1/Q-2-60	Benefit to Job	20
243	Q-S-1/Q-2-61	Course Taken (Y-N)	21
244	Q-S-1/Q-2-61	Subject Development	22
245	Q-S-1/Q-2-61	Teacher Effectiveness (P-A-G)	23
246	Q-S-1/Q-2-61	Benefit to Job	24
247	Q-S-1/Q-2-62	Course Taken (Y-N)	25
248	Q-S-1/Q-2-62	Subject Development	26
249	Q-S-1/Q-2-62	Teacher Effectiveness (P-A-G)	27
250	Q-S-1/Q-2-62	Benefit to Job	28
251	Q-S-1/Q-3	Course Benefit	29
252	Q-S-1/Q-4	Course Adequacy	30
253	Q-S-1/Q-5	Instruction Effectiveness	31
254	Q-S-1/Q-6	Student Expenses (Past)	32
255	Q-S-1/Q-7	Student Tuition (Agree.)	33
256	Q-S-1/Q-8	Classroom Facilities	34
257	Q-S-1/Q-9	Class Time	35
258	Q-S-1/Q-10	Night Shift (Y-N)	36
259	Q-S-1/Q-11	Courses (Reasons Taken)	37

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
260	Q-S-1/Q-13	Administration of IMTP	40
261	Q-S-1/Q-14	Courses (Type Needed)	41
262	Q-S-1/Q-15	Courses (Admit. To)	42
263	Q-S-1/Q-16	College Credit	43
264	Q-S-1/Q-17-A-1	Compet. Felt-Need-S-Equip.	44
265	Q-S-1/Q-17-A-2	Compet. Felt-Need-S-Production	45
266	Q-S-1/Q-17-A-3	Compet. Felt-Need-S-Materials	46
267	Q-S-1/Q-17-A-4	Compet. Felt-Need-S-Mach. Tools	47
268	Q-S-1/Q-17-A-5	Compet. Felt-Need-S-Draws-Reports	48
269	Q-S-1/Q-17-A-6	Compet. Felt-Need-S-Other Person	49
270	Q-S-1/Q-17-A-7	Compet. Felt-Need-S-Math	50
271	Q-S-1/Q-17-A-8	Compet. Felt-Need-S-Sci. & Tech.	51
272	Q-S-1/Q-17-A-9	Compet. Felt-Need-S-Communication	52
273	Q-S-1/Q-17-A-10	Compet. Felt-Need-S-Mgt. um. Rel.	53
274	Q-S-1/Q-17-A-11	Compet. Felt-Need-S-Act.-Gen. Bus.	54
275	Q-S-1/Q-17-B-1	Same variables as in A-1	55
276	Q-S-1/Q-17-B-2	through A-11	56
277	Q-S-1/Q-17-B-3		57
278	Q-S-1/Q-17-B-4		58
279	Q-S-1/Q-17-B-5		59
280	Q-S-1/Q-17-B-6		60
281	Q-S-1/Q-17-B-7		61
282	Q-S-1/Q-17-B-8		62
283	Q-S-1/Q-17-B-9		63
284	Q-S-1/Q-17-B-10		64
285	Q-S-1/Q-17-B-11		65
286	Q-S-1/Q-17-C-1	Same variables as in A-1	66
287	Q-S-1/Q-17-C-2	through A-11	67
288	Q-S-1/Q-17-C-3		68
289	Q-S-1/Q-17-C-4		69
290	Q-S-1/Q-17-C-5		70
291	Q-S-1/Q-17-C-6		71
292	Q-S-1/Q-17-C-7		72
293	Q-S-1/Q-17-C-8		73
294	Q-S-1/Q-17-C-9		74
295	Q-S-1/Q-17-C-10		75
296	Q-S-1/Q-17-C-11		76

Card 6

Field	Question	Variable Name	Column
297	Q-S-1/Q-17-D-1	Same variables as in A-1	17
298	Q-S-1/Q-17-D-2	through A-11	18
299	Q-S-1/Q-17-D-3		19
300	Q-S-1/Q-17-D-4		20
301	Q-S-1/Q-17-D-5		21

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
302	Q-S-1/Q-17-D-6	Same variables as in A-1	22
303	Q-S-1/Q-17-D-7	through A-11	23
304	Q-S-1/Q-17-D-8		24
305	Q-S-1/Q-17-D-9		25
306	Q-S-1/Q-17-D-10		26
307	Q-S-1/Q-17-D-11		27
308	Q-S-1/Q-17-E-1	Same variables as in A-1	28
309	Q-S-1/Q-17-E-2	through A-11	29
310	Q-S-1/Q-17-E-3		30
311	Q-S-1/Q-17-E-4		31
312	Q-S-1/Q-17-E-5		32
313	Q-S-1/Q-17-E-6		33
314	Q-S-1/Q-17-E-7		34
315	Q-S-1/Q-17-E-8		35
316	Q-S-1/Q-17-E-9		36
317	Q-S-1/Q-17-E-10		37
318	Q-S-1/Q-17-E-11		38
319	Q-S-1/Q-17-F-1	Same variables as in A-1	39
320	Q-S-1/Q-17-F-2	through A-11	40
321	Q-S-1/Q-17-F-3		41
322	Q-S-1/Q-17-F-4		42
323	Q-S-1/Q-17-F-5		43
324	Q-S-1/Q-17-F-6		44
325	Q-S-1/Q-17-F-7		45
326	Q-S-1/Q-17-F-8		46
327	Q-S-1/Q-17-F-9		47
328	Q-S-1/Q-17-F-10		48
329	Q-S-1/Q-17-F-11		49
330	Q-S-1/Q-17-G-1	Same variables as in A-1	50
331	Q-S-1/Q-17-G-2	through A-11	51
332	Q-S-1/Q-17-G-3		52
333	Q-S-1/Q-17-G-4		53
334	Q-S-1/Q-17-G-5		54
335	Q-S-1/Q-17-G-6		55
336	Q-S-1/Q-17-G-7		56
337	Q-S-1/Q-17-G-8		57
338	Q-S-1/Q-17-G-9		58
339	Q-S-1/Q-17-G-10		59
340	Q-S-1/Q-17-G-11		60
341	Q-S-1/Q-17-H-1	Same variables as in A-1	61
342	Q-S-1/Q-17-H-2	through A-11	62
343	Q-S-1/Q-17-H-3		63
344	Q-S-1/Q-17-H-4		64
345	Q-S-1/Q-17-H-5		65

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
346	Q-S-1/Q-17-H-6	Same variables as in A-1	66
347	Q-S-1/Q-17-H-7	through A-11	67
348	Q-S-1/Q-17-H-8		68
349	Q-S-1/Q-17-H-9		69
350	Q-S-1/Q-17-H-10		70
351	Q-S-1/Q-17-H-11		71
352	Q-S-1/Q-17-I-1	Same variables as in A-1	72
353	Q-S-1/Q-17-I-2	through A-11	73
354	Q-S-1/Q-17-I-3		74
355	Q-S-1/Q-17-I-4		75
356	Q-S-1/Q-17-I-5		76

Card 7

Field	Question	Variable Name	Column
357	Q-S-1/Q-17-I-6	Same variables as in A-1	17
358	Q-S-1/Q-17-I-7	through A-11	18
359	Q-S-1/Q-17-I-8		19
360	Q-S-1/Q-17-I-9		20
361	Q-S-1/Q-17-I-10		21
362	Q-S-1/Q-17-I-11		22
363	Q-S-1/Q-18-A-1	Self Rating-Equipment	23
364	Q-S-1/Q-18-A-2	Self Rating-Production	24
365	Q-S-1/Q-18-A-3	Self Rating-Materials	25
366	Q-S-1/Q-18-A-4	Self Rating-Machine Tools	26
367	Q-S-1/Q-18-A-5	Self Rating-Drawings-Reports	27
368	Q-S-1/Q-18-A-6	Self Rating-Other Persons	28
369	Q-S-1/Q-18-A-7	Self Rating-Math	29
370	Q-S-1/Q-18-A-8	Self Rating-Science & Tech.	30
371	Q-S-1/Q-18-A-9	Self Rating-Communications	31
372	Q-S-1/Q-18-A-10	Self Rating-Mgt. & Human Rel.	32
373	Q-S-1/Q-18-A-11	Self Rating-Act. & Gen. Business	33
374	Q-S-1/Q-18-B-1	Same variables as in 18-A-1	34
375	Q-S-1/Q-18-B-2	through 18-A-11	35
376	Q-S-1/Q-18-B-3		36
377	Q-S-1/Q-18-B-4		37
378	Q-S-1/Q-18-B-5		38
379	Q-S-1/Q-18-B-6		39
380	Q-S-1/Q-18-B-7		40
381	Q-S-1/Q-18-B-8		41
382	Q-S-1/Q-18-B-9		42
383	Q-S-1/Q-18-B-10		43
384	Q-S-1/Q-18-B-11		44

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
385	Q-S-1/Q-18-C-1	Same variables as in 18-A-1	45
386	Q-S-1/Q-18-C-2	through 18-A-11	46
387	Q-S-1/Q-18-C-3		47
388	Q-S-1/Q-18-C-4		48
389	Q-S-1/Q-18-C-5		49
390	Q-S-1/Q-18-C-6		50
391	Q-S-1/Q-18-C-7		51
392	Q-S-1/Q-18-C-8		52
393	Q-S-1/Q-18-C-9		53
394	Q-S-1/Q-18-C-10		54
395	Q-S-1/Q-18-C-11		55
396	Q-S-1/Q-18-D-1	Same variables as in 18-A-1	56
397	Q-S-1/Q-18-D-2	through 18-A-11	57
398	Q-S-1/Q-18-D-3		58
399	Q-S-1/Q-18-D-4		59
400	Q-S-1/Q-18-D-5		60
401	Q-S-1/Q-18-D-6		61
402	Q-S-1/Q-18-D-7		62
403	Q-S-1/Q-18-D-8		63
404	Q-S-1/Q-18-D-9		64
405	Q-S-1/Q-18-D-10		65
406	Q-S-1/Q-18-D-11		66
407	Q-S-1/Q-18-E-1	Same variables as in 18-A-1	67
408	Q-S-1/Q-18-E-2	through 18-A-11	68
409	Q-S-1/Q-18-E-3		69
410	Q-S-1/Q-18-E-4		70
411	Q-S-1/Q-18-E-5		71
412	Q-S-1/Q-18-E-6		72
413	Q-S-1/Q-18-E-7		73
414	Q-S-1/Q-18-E-8		74
415	Q-S-1/Q-18-E-9		75
416	Q-S-1/Q-18-E-10		76
417	Q-S-1/Q-18-E-11		77

Card 8

Field	Question	Variable Name	Column
418	Q-S-1/Q-18-F-1	Same variables as in 18-A-1	17
419	Q-S-1/Q-18-F-2	through 18-A-11	18
420	Q-S-1/Q-18-F-3		19
421	Q-S-1/Q-18-F-4		20
422	Q-S-1/Q-18-F-5		21
423	Q-S-1/Q-18-F-6		22
424	Q-S-1/Q-18-F-7		23
425	Q-S-1/Q-18-F-8		24
426	Q-S-1/Q-18-F-9		25
427	Q-S-1/Q-18-F-10		26
428	Q-S-1/Q-18-F-11		27

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
429	Q-S-1/Q-18-G-1	Same variables as in 18-A-1	28
430	Q-S-1/Q-18-G-2	through 18-A-11	29
431	Q-S-1/Q-18-G-3		30
432	Q-S-1/Q-18-G-4		31
433	Q-S-1/Q-18-G-5		32
434	Q-S-1/Q-18-G-6		33
435	Q-S-1/Q-18-G-7		34
436	Q-S-1/Q-18-G-8		35
437	Q-S-1/Q-18-G-9		36
438	Q-S-1/Q-18-G-10		37
439	Q-S-1/Q-18-G-11		38
440	Q-S-1/Q-18-H-1	Same variables as in 18-A-1	39
441	Q-S-1/Q-18-H-2	through 18-A-11	40
442	Q-S-1/Q-18-H-3		41
443	Q-S-1/Q-18-H-4		42
444	Q-S-1/Q-18-H-5		43
445	Q-S-1/Q-18-H-6		44
446	Q-S-1/Q-18-H-7		45
447	Q-S-1/Q-18-H-8		46
448	Q-S-1/Q-18-H-9		47
449	Q-S-1/Q-18-H-10		48
450	Q-S-1/Q-18-H-11		49
451	Q-S-1/Q-18-I-1	Same variables as in 18-A-1	50
452	Q-S-1/Q-18-I-2	through 18-A-11	51
453	Q-S-1/Q-18-I-3		52
454	Q-S-1/Q-18-I-4		53
455	Q-S-1/Q-18-I-5		54
456	Q-S-1/Q-18-I-6		55
457	Q-S-1/Q-18-I-7		56
458	Q-S-1/Q-18-I-8		57
459	Q-S-1/Q-18-I-9		58
460	Q-S-1/Q-18-I-10		59
461	Q-S-1/Q-18-I-11		60

Card 9

Field	Question	Variable Name	Column
462	Q-S-II/Q-1	Youth Committee	17
463	Q-S-II/Q-2	Recent Residence	18
464	Q-S-II/Q-3	Marital Status	21
465	Q-S-II/Q-8	Religion (Adherence)	30
466	Q-S-II/Q-9	Religion (Importance)	31
467	Q-S-II/Q-10	Personalism (Job-Amount)	32
468	Q-S-II/Q-11	Personalism (Job-Importance)	33
469	Q-S-II/Q-12	Education (Amount)	34
470	Q-S-II/Q-13	Residency (Change)	35

FCC I: STUDENT--Continued.

Field	Question	Variable Name	Column
471	Q-S-II/Q-14	Job (Change)	36
472	Q-S-II/Q-16	Religion (Observance)	39
473	Q-S-II/Q-17	Change (Health)	40
474	Q-S-II/Q-18	Change (Child rearing)	41
475	Q-S-II/Q-19	Change (Birth control)	42
476	Q-S-II/Q-20	Change (Automation)	43
477	Q-S-II/Q-21	Change (Political Lead.)	44
478	Q-S-II/Q-22	Aid-Education (Local)	45
479	Q-S-II/Q-23	Aid-Education (Federal)	46.
480	Q-S-II/Q-24	Education (Planning)	47
481	Q-S-II/Q-25	Change (Self)	48
482	Q-S-II/Q-26	Change (Rule Adherence)	49
483	Q-S-II/Q-27	Job (Routine)	50
484	Q-S-II/Q-28	Future Orientation (Planning)	51
485	Q-S-II/Q-29	Happiness (Requisite for)	52
486	Q-S-II/Q-30	Happiness (Possibilities future)	53
487	Q-S-II/Q-31-A	Elementary Schools	54
488	Q-S-II/Q-31-B	Secondary Schools	55
489	Q-S-II/Q-31-C	Universities	56
490	Q-S-II/Q-31-D	Businessmen	57
491	Q-S-II/Q-31-E	Labor	58
492	Q-S-II/Q-31-F	Local Government	59
493	Q-S-II/Q-31-G	National Government	60
494	Q-S-II/Q-31-H	Health Services	61
495	Q-S-II/Q 31-I	Churches	62

FCC I: TEACHER

BENTON HARBOR-ST. JOSEPH
MANAGEMENT TRAINING STUDY

Field	Question	Variable Name	Column
		Card 1	
1	Face Sheet	Sex	8
2			
3	Q-T-1/Q-1	Experience with IMTP	17
4	Q-T-1/Q-2-1	Course Taken (Y-N)	18
5	Q-T-1/Q-2-1	Subject Development	19
6	Q-T-1/Q-2-1	Teacher Effectiveness (P-A-G)	20
7	Q-T-1/Q-2-1	Benefit to Job	21
8	Q-T-1/Q-2-2	Course Taken (Y-N)	22
9	Q-T-1/Q-2-2	Subject Development	23
10	Q-T-1/Q-2-2	Teacher Effectiveness (P-A-G)	24
11	Q-T-1/Q-2-2	Benefit to Job	25
12	Q-T-1/Q-2-3	Course Taken (Y-N)	26
13	Q-T-1/Q-2-3	Subject Development	27
14	Q-T-1/Q-2-3	Teacher Effectiveness (P-A-G)	28
15	Q-T-1/Q-2-3	Benefit to Job	29
16	Q-T-1/Q-2-4	Course Taken (Y-N)	30
17	Q-T-1/Q-2-4	Subject Development	31
18	Q-T-1/Q-2-4	Teacher Effectiveness (P-A-G)	32
19	Q-T-1/Q-2-4	Benefit to Job	33
20	Q-T-1/Q-2-5	Course Taken (Y-N)	34
21	Q-T-1/Q-2-5	Subject Development	35
22	Q-T-1/Q-2-5	Teacher Effectiveness (P-A-G)	36
23	Q-T-1/Q-2-5	Benefit to Job	37
24	Q-T-1/Q-2-6	Course Taken (Y-N)	38
25	Q-T-1/Q-2-6	Subject Development	39
26	Q-T-1/Q-2-6	Teacher Effectiveness (P-A-G)	40
27	Q-T-1/Q-2-6	Benefit to Job	41
28	Q-T-1/Q-2-7	Course Taken (Y-N)	42
29	Q-T-1/Q-2-7	Subject Development	43
30	Q-T-1/Q-2-7	Teacher Effectiveness (P-A-G)	44
31	Q-T-1/Q-2-7	Benefit to Job	45
32	Q-T-1/Q-2-8	Course Taken (Y-N)	46
33	Q-T-1/Q-2-8	Subject Development	47
34	Q-T-1/Q-2-8	Teacher Effectiveness (P-A-G)	48
35	Q-T-1/Q-2-8	Benefit to Job	49
36	Q-T-1/Q-2-9	Course Taken (Y-N)	50

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
37	Q-T-1/Q-2-9	Subject Development	51
38	Q-T-1/Q-2-9	Teacher Effectiveness (P-A-G)	52
39	Q-T-1/Q-2-9	Benefit to Job	53
40	Q-T-1/Q-2-10	Course Taken (Y-N)	54
41	Q-T-1/Q-2-10	Subject Development	55
42	Q-T-1/Q-2-10	Teacher Effectiveness (P-A-G)	56
43	Q-T-1/Q-2-10	Benefit to Job	57
44	Q-T-1/Q-2-11	Course Taken (Y-N)	58
45	Q-T-1/Q-2-11	Subject Development	59
46	Q-T-1/Q-2-11	Teacher Effectiveness (P-A-G)	60
47	Q-T-1/Q-2-11	Benefit to Job	61
48	Q-T-1/Q-2-12	Course Taken (Y-N)	62
49	Q-T-1/Q-2-12	Subject Development	63
50	Q-T-1/Q-2-12	Teacher Effectiveness (P-A-G)	64
51	Q-T-1/Q-t-12	Benefit to Job	65
52	Q-T-1/Q-2-13	Course Taken (Y-N)	66
53	Q-T-1/Q-2-13	Subject Development	67
54	Q-T-1/Q-2-13	Teacher Effectiveness (P-A-G)	68
55	Q-T-1/Q-2-13	Benefit to Job	69
56	Q-T-1/Q-2-14	Course Taken (Y-N)	70
57	Q-T-1/Q-2-14	Subject Development	71
58	Q-T-1/Q-2-14	Teacher Effectiveness (P-A-G)	72
59	Q-T-1/Q-2-14	Benefit to Job	73

Card 2

Field	Question	Variable Name	Column
60	Q-T-1/Q-2-15	Course Taken (Y-N)	18
61	Q-T-1/Q-2-15	Subject Development	19
62	Q-T-1/Q-2-15	Teacher Effectiveness (P-A-G)	20
63	Q-T-1/Q-2-15	Benefit to Job	21
64	Q-T-1/Q-2-16	Course Taken (Y-N)	22
65	Q-T-1/Q-2-16	Subject Development	23
66	Q-T-1/Q-2-16	Teacher Effectiveness (P-A-G)	24
67	Q-T-1/Q-2-16	Benefit to Job	25
68	Q-T-1/Q-2-17	Course Taken (Y-N)	26
69	Q-T-1/Q-2-17	Subject Development	27
70	Q-T-1/Q-2-17	Teacher Effectiveness (P-A-G)	28
71	Q-T-1/Q-2-17	Benefit to Job	29
72	Q-T-1/Q-2-18	Course Taken (Y-N)	30
73	Q-T-1/Q-2-18	Subject Development	31
74	Q-T-1/Q-2-18	Teacher Effectiveness (P-A-G)	32
75	Q-T-1/Q-2-18	Benefit to Job	33
76	Q-Y-1/Q-2-19	Course Taken (Y-N)	34
77	Q-T-1/Q-2-19	Subject Development	35
78	Q-T-1/Q-2-19	Teacher Effectiveness (P-A-G)	36
79	Q-T-1/Q-2-19	Benefit to Job	37
80	Q-T-1/Q-2-20	Course Taken (Y-N)	38

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
81	Q-T-1/Q-2-20	Subject Development	39
82	Q-T-1/Q-2-20	Teacher Effectiveness (P-A-G)	40
83	Q-T-1/Q-2-20	Benefit to Job	41
84	Q-T-1/Q-2-21	Course Taken (Y-N)	42
85	Q-T-1/Q-2-21	Subject Development	43
86	Q-T-1/Q-2-21	Teacher Effectiveness (P-A-G)	44
87	Q-T-1/Q-2-21	Benefit to Job	45
88	Q-T-1/Q-2-22	Course Taken (Y-N)	46
89	Q-T-1/Q-2-22	Subject Development	47
90	Q-T-1/Q-2-22	Teacher Effectiveness (P-A-G)	48
91	Q-T-1/Q-2-22	Benefit to Job	49
92	Q-T-1/Q-2-23	Course Taken (Y-N)	50
93	Q-T-1/Q-2-23	Subject Development	51
94	Q-T-1/Q-2-23	Teacher Effectiveness (P-A-G)	52
95	Q-T-1/Q-2-23	Benefit to Job	53
96	Q-T-1/Q-2-24	Course Taken (Y-N)	54
97	Q-T-1/Q-2-24	Subject Development	55
98	Q-T-1/Q-2-24	Teacher Effectiveness (P-A-G)	56
99	Q-T-1/Q-2-24	Benefit to Job	57
100	Q-T-1/Q-2-25	Course Taken (Y-N)	58
101	Q-T-1/Q-2-25	Subject Development	59
102	Q-T-1/Q-2-25	Teacher Effectiveness (P-A-G)	60
103	Q-T-1/Q-2-25	Benefit to Job	61
104	Q-T-1/Q-2-26	Course Taken (Y-N)	62
105	Q-T-1/Q-2-26	Subject Development	63
106	Q-T-1/Q-2-26	Teacher Effectiveness (P-A-G)	64
107	Q-T-1/Q-2-26	Benefit to Job	65
108	Q-T-1/Q-2-27	Course Taken (Y-N)	66
109	Q-T-1/Q-2-27	Subject Development	67
110	Q-T-1/Q-2-27	Teacher Effectiveness (P-A-G)	68
111	Q-T-1/Q-2-27	Benefit to Job	69
112	Q-T-1/Q-2-28	Course Taken (Y-N)	70
113	Q-T-1/Q-2-28	Subject Development	71
114	Q-T-1/Q-2-28	Teacher Effectiveness (P-A-G)	72
115	Q-T-1/Q-2-28	Benefit to Job	73
116	Q-T-1/Q-2-29	Course Taken (Y-N)	74
117	Q-T-1/Q-2-29	Subject Development	75
118	Q-T-1/Q-2-29	Teacher Effectiveness (P-A-G)	76
119	Q-T-1/Q-2-29	Benefit to Job	77

Card 3

Field	Question	Variable Name	Column
120	Q-T-1/Q-2-30	Course Taken (Y-N)	18
121	Q-T-1/Q-2-30	Subject Development	19
122	Q-T-1/Q-2-30	Teacher Effectiveness (P-A-G)	20
123	Q-T-1/Q-2-30	Benefit to Job	21
124	Q-T-1/Q-2-31	Course Taken (Y-N)	22

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
125	Q-T-1/Q-2-31	Subject Development	23
126	Q-T-1/Q-2-31	Teacher Effectiveness (P-A-G)	24
127	Q-T-1/Q-2-31	Benefit to Job	25
128	Q-T-1/Q-2-32	Course Taken (Y-N)	26
129	Q-T-1/Q-2-32	Subject Development	27
130	Q-T-1/Q-2-32	Teacher Effectiveness (P-A-G)	28
131	Q-T-1/Q-2-32	Benefit to Job	29
132	Q-T-1/Q-2-33	Course Taken (Y-N)	30
133	Q-T-1/Q-2-33	Subject Development	31
134	Q-T-1/Q-2-33	Teacher Effectiveness (P-A-G)	32
135	Q-T-1/Q-2-33	Benefit to Job	33
136	Q-T-1/Q-2-34	Course Taken (Y-N)	34
137	Q-T-1/Q-2-34	Subject Development	35
138	Q-T-1/Q-2-34	Teacher Effectiveness (P-A-G)	36
139	Q-T-1/Q-2-34	Benefit to Job	37
140	Q-T-1/Q-2-35	Course Taken (Y-N)	38
141	Q-T-1/Q-2-35	Subject Development	39
142	Q-T-1/Q-2-35	Teacher Effectiveness (P-A-G)	40
143	Q-T-1/Q-2-35	Benefit to Job	41
144	Q-T-1/Q-2-36	Course Taken (Y-N)	42
145	Q-T-1/Q-2-36	Subject Development	43
146	Q-T-1/Q-2-36	Teacher Effectiveness (P-A-G)	44
147	Q-T-1/Q-2-36	Lenefit to Job	45
148	Q-T-1/Q-2-37	Course Taken (Y-N)	46
149	Q-T-1/Q-2-37	Subject Development	47
150	Q-T-1/Q-2-37	Teacher Effectiveness (P-A-G)	48
151	Q-T-1/Q-2-37	Benefit to Job	49
152	Q-T-1/Q-2-38	Course Taken (Y-N)	50
153	Q-T-1/Q-2-38	Subject Development	51
154	Q-T-1/Q-2-38	Teacher Effectiveness (P-A-G)	52
155	Q-T-1/Q-2-38	Benefit to Job	53
156	Q-T-1/Q-2-39	Course Taken (Y-N)	54
157	Q-T-1/Q-2-39	Subject Development	55
158	Q-T-1/Q-2-39	Teacher Effectiveness (P-A-G)	56
159	Q-T-1/Q-2-39	Benefit to Job	57
160	Q-T-1/Q-2-40	Course Taken (Y-N)	58
161	Q-T-1/Q-2-40	Subject Development	59
162	Q-T-1/Q-2-40	Teacher Effectiveness (P-A-G)	60
163	Q-T-1/Q-2-40	Benefit to Job	61
164	Q-T-1/Q-2-41	Course Taken (Y-N)	62
165	Q-T-1/Q-2-41	Subject Development	63
166	Q-T-1/Q-2-41	Teacher Effectiveness (P-A-G)	64
167	Q-T-1/Q-2-41	Benefit to Job	65
168	Q-T-1/Q-2-42	Course Taken (Y-N)	66
169	Q-T-1/Q-2-42	Subject Development	67
170	Q-T-1/Q-2-42	Teacher Effectiveness (P-A-G)	68
171	Q-T-1/Q-2-42	Benefit to Job	69
172	Q-T-1/Q-2-43	Course Taken (Y-N)	70

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
173	Q-T-1/Q-2-43	Subject Development	71
174	Q-T-1/Q-2-43	Teacher Effectiveness (P-A-G)	72
175	Q-T-1/Q-2-43	Benefit to Job	73
176	Q-T-1/Q-2-44	Course Taken (Y-N)	74
177	Q-T-1/Q-2-44	Subject Development	75
178	Q-T-1/Q-2-44	Teacher Effectiveness (P-A-G)	76
179	Q-T-1/Q-2-44	Benefit to Job	77

Card 4

Field	Question	Variable Name	Column
180	Q-T-1/Q-2-45	Course Taken (Y-N)	18
181	Q-T-1/Q-2-45	Subject Development	19
182	Q-T-1/Q-2-45	Teacher Effectiveness (P-A-G)	20
183	Q-T-1/Q-2-45	Benefit to Job	21
184	Q-T-1/Q-2-46	Course Taken (Y-N)	22
185	Q-T-1/Q-2-46	Subject Development	23
186	Q-T-1/Q-2-46	Teacher Effectiveness (P-A-G)	24
187	Q-T-1/Q-2-46	Benefit to Job	25
188	Q-T-1/Q-2-47	Course Taken (Y-N)	26
189	Q-T-1/Q-2-47	Subject Development	27
190	Q-T-1/Q-2-47	Teacher Effectiveness (P-A-G)	28
191	Q-T-1/Q-2-47	Benefit to Job	29
192	Q-T-1/Q-2-48	Course Taken (Y-N)	30
193	Q-T-1/Q-2-48	Subject Development	31
194	Q-T-1/Q-2-48	Teacher Effectiveness (P-A-G)	32
195	Q-T-1/Q-2-48	Benefit to Job	33
196	Q-T-1/Q-2-49	Course Taken (Y-N)	34
197	Q-T-1/Q-2-49	Subject Development	35
198	Q-T-1/Q-2-49	Teacher Effectiveness (P-A-G)	36
199	Q-T-1/Q-2-49	Benefit to Job	37
200	Q-T-1/Q-2-50	Course Taken (Y-N)	38
201	Q-T-1/Q-2-50	Subject Development	39
202	Q-T-1/Q-2-50	Teacher Effectiveness (P-A-G)	40
203	Q-T-1/Q-2-50	Benefit to Job	41
204	Q-T-1/Q-2-51	Course Taken (Y-N)	42
205	Q-T-1/Q-2-51	Subject Development	43
206	Q-T-1/Q-2-51	Teacher Effectiveness (P-A-G)	44
207	Q-T-1/Q-2-51	Benefit to Job	45
208	Q-T-1/Q-2-52	Course Taken (Y-N)	46
209	Q-T-1/Q-2-52	Subject Development	47
210	Q-T-1/Q-2-52	Teacher Effectiveness (P-A-G)	48
211	Q-T-1/Q-2-52	Benefit to Job	49
212	Q-T-1/Q-2-53	Course Taken (Y-N)	50
213	Q-T-1/Q-2-53	Subject Development	51
214	Q-T-1/Q-2-53	Teacher Effectiveness (P-A-G)	52
215	Q-T-1/Q-2-53	Benefit to Job	53
216	Q-T-1/Q-2-54	Course Taken (Y-N)	54

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
217	Q-T-1/Q-2-54	Subject Development	55
218	Q-T-1/Q-2-54	Teacher Effectiveness (P-A-G)	56
219	Q-T-1/Q-2-54	Benefit to Job	57
220	Q-T-1/Q-2-55	Course Taken (Y-N)	58
221	Q-T-1/Q-2-55	Subject Development	59
222	Q-T-1/Q-2-55	Teacher Effectiveness (P-A-G)	60
223	Q-T-1/Q-2-55	Benefit to Job	61
224	Q-T-1/Q-2-56	Course Taken (Y-N)	62
225	Q-T-1/Q-2-56	Subject Development	63
226	Q-T-1/Q-2-56	Teacher Effectiveness (P-A-G)	64
227	Q-T-1/Q-2-56	Benefit to Job	65
228	Q-T-1/Q-2-57	Course Taken (Y-N)	66
229	Q-T-1/Q-2-57	Subject Development	67
230	Q-T-1/Q-2-57	Teacher Effectiveness (P-A-G)	68
231	Q-T-1/Q-2-57	Benefit to Job	69
232	Q-T-1/Q-2-58	Course Taken (Y-N)	70
233	Q-T-1/Q-2-58	Subject Development	71
234	Q-T-1/Q-2-58	Teacher Effectiveness (P-A-G)	72
235	Q-T-1/Q-2-58	Benefit to Job	73
236	Q-T-1/Q-2-59	Course Taken (Y-N)	74
237	Q-T-1/Q-2-59	Subject Development	75
238	Q-T-1/Q-2-59	Teacher Effectiveness (P-A-G)	76
239	Q-T-1/Q-2-59	Benefit to Job	77

Card 5

Field	Question	Variable Name	Column
240	Q-T-1/Q-2-60	Course Taken (Y-N)	18
241	Q-T-1/Q-2-60	Subject Development	19
242	Q-T-1/Q-2-60	Teacher Effectiveness (P-A-G)	20
243	Q-T-1/Q-2-60	Benefit to Job	21
244	Q-T-1/Q-2-61	Course Taken (Y-N)	22
245	Q-T-1/Q-2-61	Subject Development	23
246	Q-T-1/Q-2-61	Teacher Effectiveness (P-A-G)	24
247	Q-T-1/Q-2-61	Benefit to Job	25
248	Q-T-1/Q-2-62	Course Taken (Y-N)	26
249	Q-T-1/Q-2-62	Subject Development	27
250	Q-T-1/Q-2-62	Teacher Effectiveness (P-A-G)	28
251	Q-T-1/Q-2-62	Benefit to Job	29
252	Q-T-1/Q-3	Course Perceived St. Rating	30
253	Q-T-1/Q-4	Course Self Rating	31
254	Q-T-1/Q-5	Tuition (Co. payment policy)	32
255	Q-T-1/Q-6	Tuition (Pay. policy agreement)	33
256	Q-T-1/Q-7	Classroom Facilities	34
257	Q-T-1/Q-8	Class Time	35
258	Q-T-1/Q-9	Night Shift (Y-N)	36
259	Q-T-1/Q-10	Taught (Reason for)	37

FCC I: TEACHER--Continued.

Field	Question	Variable Name	Column
260	Q-T-1/Q-12	Administration of IMTP	40
261	Q-T-1/Q-13	Courses (Type)	41
262	Q-T-1/Q-14	Courses (Admittance to)	42
263	Q-T-1/Q-15	College Credit	43

Card 6

Field	Question	Variable Name	Column
264	Q-T-II/A-1	Youth Committee	17
265	Q-T-II/Q-2	Recent Residence	18
266	Q-T-II/Q-4	Marital Status	21
267	Q-T-II/Q-8	Religion (Adherence)	30
268	Q-T-II/Q-9	Religion (Importance)	31
269	Q-T-II/Q-10	Personalism (Job-amount)	32
270	Q-T-II/Q-11	Personalism (Job-importance)	33
271	Q-T-II/Q-12	Education (Amount)	34
272	Q-T-II/Q-13	Residency (Change)	35
273	Q-T-II/Q-14	Job (Change)	36
274	Q-T-II/Q-16	Religion (Observance)	39
275	Q-T-II/Q-17	Change (Health)	40
276	Q-T-II/Q-18	Change (Child-rearing)	41
277	Q-T-II/Q-19	Change (Birth control)	42
278	Q-T-II/Q-20	Change (Automation	43
279	Q-T-II/Q-21	Change (Political leaders)	44
280	Q-T-II/Q-22	Aid-education (Local)	45
281	Q-T-II/Q-23	Aid-education (Federal)	46
282	Q-T-II/Q-24	Education (Planning)	47
283	Q-T-II/Q-25	Change (Self)	48
284	Q-T-II/Q-26	Change (Rule adherence)	49
285	Q-T-II/Q-27	Job (Routine)	50
286	Q-T-II/Q-28	Future Orient. (Planning)	51
287	Q-T-II/Q-29	Happiness (Requisites for)	52
288	Q-T-II/Q-30	Happiness (Poss. future)	53
289	Q-T-II/Q-31-A	Elementary Schools	54
290	Q-T-II/Q-31-B	Secondary Schools	55
291	Q-T-II/Q-31-C	Universities	56
292	Q-T-II/Q-31-D	Businessmen	57
293	Q-T-II/Q-31-E	Labor	58
294	Q-T-II/Q-31-F	Local Government	59
295	Q-T-II/Q-31-G	National Government	60
296	Q-T-II/Q-31-H	Health Services	61
297	Q-T-II/Q-31-I	Churches	62

BENTON HARBOR-ST. JOSEPH
MANAGEMENT TRAINING STUDY

FCC II: STUDENT

Field	Question	Variable Name	Column
		Card 1	
1	Postmark	Date returned by week of rcpt.	9,10
		Card 5	
2	Q-S-1/Q-12	Courses (Specific needs)	38,39
		Card 9	
3	Q-S-II/Q-3	Age	19,20
4	Q-S-II/Q-5	Children (Number of)	22,23
5	Q-S-II/Q-6	Salary (Self)	24,25
6	Q-S-II/Q-7	Salary (Spouse)	26,27
7	Q-S-II/Q-6-7	Salary (Combined)	28,29
8	Q-S-II/Q-15	Occupations (Category)	37,38

FCC II: TEACHER

Field	Question	Variable Name	Column
		Card 5	
1	Q-T-1/Q-11	Courses (Specific needs)	38,39
		Card 6	
2	Q-T-1/Q-3	Age	19,20
3	Q-T-1/Q-5	Children (Number of)	22,23
4	Q-T-II/Q-6	Salary (Self)	24,25
5	Q-T-II/Q-7	Salary (Spouse)	26,27
6	Q-T-II/Q-8	Salary (Combined)	28,29
7	Q-T-II/Q-15	Occupation (Category)	37,38

FCC II: MANAGER

None used for analysis